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An examination of the institutional adjustment of sexual offenders

Abstract

In the United States, as of the year 2008, more than 1.6 million people were incarcerated representing the highest incarceration rate of any other developed country (Sabol, West, & Cooper, 2009). Given the large number of inmates, institutional systems regularly face budgetary issues. They must therefore find and implement effective and efficient ways to manage the inmate population, while balancing the rights and safety of the inmates (Austin & McGinnis, 2004; Clements, 1996). Identifying "risky" and vulnerable inmates can improve institutional safety for both staff and inmates (Wright, 1988). Most research conducted in prisons has focused on male offenders and the research has been blindly and erroneously applied to female offenders. The small existing body of research indicates female inmates are different than male inmates in many ways and warrant special consideration.

Institutional adjustment is a process during which inmates must acclimate to the complex, and sometimes dangerous prison environment. Although researchers have not come to a consensus about how best to define and measure adjustment, there are known factors that can positively or negatively influence adjustment. This adjustment period is of particular interest to prison administrators because the stress of incarceration can exacerbate existing mental health problems or contribute to their emergence. During this time inmates may be more prone to acting out and/ or victimization by other inmates (Toch, Adams, & Grant, 1989).

Sexual offenders entering prison are a vulnerable and stigmatized group by the title alone (South & Wood, 2006). It is thought their adjustment process is more difficult than the average offender due to their increased likelihood of victimization (Edgar & O'Donnell, 1998). Sexual offenders as a whole have a high prevalence of mental health problems, which can further complicate their adjustment experience (Kafka & Hennen, 2002).

This study will compare the adjustment of sexual and nonsexual offenders during their first six months of incarceration using the Conflict and Distress scales of the Prison Adjustment Questionnaire (PAQ) and Victimization scale of the Prison Violence Inventory (PVI). It is hypothesized the sexual offender group will have poorer adjustment than the nonsexual offender group and scale scores will decrease in both groups from baseline to the six month follow-up as offenders adjust to the prison environment. The results of the study indicated sexual offenders experienced more distress at baseline and a higher rate of victimization at follow-up than nonsexual offenders. There was also an unexpected increase in scores for both sexual offenders and nonsexual offenders from baseline to follow-up in regard to level of conflict and rate of victimization. The results of this study have broader implications and can be used by institutions to improve management of vulnerable inmates and increase overall institutional safety.

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AN EXAMINATION OF THE INSTITUTIONAL ADJUSTMENT OF SEXUAL OFFENDERS

A DISSERTATION

SUBMITTED TO THE FACULTY

OF

SCHOOL OF PROFESSIONAL PSYCHOLOGY

PACIFIC UNIVERSITY

HILLSBORO, OREGON

BY

LISA C. TRIFILETTI

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

DOCTOR OF PSYCHOLOGY

APRIL 19, 2013

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TABLE OF CONTENTS

	Page
ABSTRACT.....	iv
ACKNOWLEDEGMENTS.....	vi
LIST OF TABLES.....	vii
INTRODUCTION	1
REVIEW OF THE LITERATURE	4
Institutional Adjustment	4
Correlates of Adjustment to Prison.....	10
Violence and Victimization	25
Female Offenders.....	30
Male Sexual Offenders and Institutional Adjustment.....	34
Female Sexual Offenders and Institutional Adjustment	40
The Current Study.....	45
METHOD	47
Participants.....	47
Measures	54
Procedure	55
Statistical Analyses	57
RESULTS	60
Pre-Analysis Data Screening	60
Wilcoxon Signed-Rank Test.....	63
Mann-Whitney U Test	65

DISCUSSION	67
Findings and Implications.....	67
Strengths and Limitations	73
Future Research	78
REFERENCES	82

ABSTRACT

In the United States, as of the year 2008, more than 1.6 million people were incarcerated representing the highest incarceration rate of any other developed country (Sabol, West, & Cooper, 2009). Given the large number of inmates, institutional systems regularly face budgetary issues. They must therefore find and implement effective and efficient ways to manage the inmate population, while balancing the rights and safety of the inmates (Austin & McGinnis, 2004; Clements, 1996). Identifying “risky” and vulnerable inmates can improve institutional safety for both staff and inmates (Wright, 1988). Most research conducted in prisons has focused on male offenders and the research has been blindly and erroneously applied to female offenders. The small existing body of research indicates female inmates are different than male inmates in many ways and warrant special consideration.

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Keywords: institutional adjustment; sex offender; victimization; Prison Adjustment Questionnaire (PAQ); Prison Violence Inventory (PVI)

ACKNOWLEDGMENTS

The completion of this dissertation project signifies the last and final step toward the completion of my doctoral degree. It's difficult to describe how much pride I feel in reaching this life-long goal. I could not have achieved this without the support and encouragement of wonderful friends and family. I would first like to thank my husband, Bill for his encouragement and regular doses of reality – may the year of fun officially begin! I would like to thank mom, papa, Anthony, Catherine, and Laura who have been an unwavering source of support. I really appreciate your senses of humor and threats of being “ABD” or a future of living in a van down by the river. I would like to thank my fellow interns from the Wisconsin Department of Corrections, particularly Stacie and Jasmine – you kept me motivated and moving forward.

I would also like to thank my dissertation chair, Michelle Guyton, not just for her support and guidance on this project, but for her mentorship throughout my graduate career. It has been a privilege working with you and I thank you for all you have taught me. A big thank you to my dissertation reader, Paul Michael for his patience and wealth of statistical knowledge! Lastly, I want to thank the Oregon Department of Corrections for allowing students the opportunity to conduct research in the prisons.

LIST OF TABLES

Table 1. Descriptive Statistics for the Sexual Offender (SO) and Nonsexual Offender (NSO) Groups at Baseline and Six Month Follow-up.....	50
Table 2. Ethnic Composition of the Sexual Offender (SO) and Nonsexual Offender (NSO) Groups at Baseline and Six Month Follow-up.....	50
Table 3. Abuse Statistics for the Sexual (SO) and Nonsexual Offender (NSO) Participants Broken Down by Gender	51
Table 4. Descriptive Statistics for the Sexual Offender (SO) and Nonsexual Offender (NSO) Participants who Completed the Six Month Follow-up Measures and those Who Dropped Out	52
Table 5. Baseline Mean Scale Scores for the Sexual Offender (SO) and Nonsexual Offender (NSO) Participants who Completed the Six Month Follow-up Measures and those Who Dropped Out	53
Table 6. Scale Scores for the Sexual Offender (SO) Participants Broken Down by Gender	53
Table 7. Scale Scores for the Nonsexual Offender (NSO) Participants Broken Down by Gender	54
Table 8. Scale Scores for the Sexual Offender (SO) and Nonsexual Offender (NSO) Participants	67

INTRODUCTION

Research on institutional adjustment is becoming more important and relevant as the prison population in the United States increases. The problems of overcrowding and efficient utilization of limited resources within prisons are at the forefront of how to manage a growing prison population (Clements, 1996). The ability for individual institutions to identify inmates with special needs or unique characteristics may aid in efficient institutional management and a safer environment for both inmates and staff (Caperton, Edens, & Johnson, 2004).

According to Wright (1988), prison administrators are most concerned with maintaining safety and security through control of the inmate population. Beyond these goals, institutions have also been federally mandated to uphold the rights of inmates and ensure their basic needs are met (Austin & McGinnis, 2004). Offender classification and identification of “risky” inmates is one of the best tools to achieve those ends. Institutional administrators are particularly interested in both identifying inmates who may be at higher risk for institutional misconduct and inmates who may have an increased risk of being victimized by other inmates. There are a number of factors that may make an individual more or less vulnerable to victimization and if these can be detected by prison administrators they can take steps to keep the individual safe. Institutions often implement procedures to screen inmates when they arrive in order to effectively classify them and determine if they require special management.

There is a sensitive period of adjustment or acclimation that takes place when an inmate arrives to prison during which the inmate must learn to navigate the complex and potentially dangerous environment. They must learn the rules and norms of the prison, many of which are not explicit. The characteristics and vulnerabilities an inmate brings with them to the prison environment have bearing on how they will go about adjusting and the amount of stress they will

experience in the process. This initial adjustment phase is of particular interest to prison administrators and researchers because inmates are usually experiencing high levels of stress which may exacerbate existing mental health problems or contribute to the emergence of new mental health problems. During this adjustment phase the inmate may be more vulnerable to victimization and/ or prone to acting out behavior (Toch, Adams, & Grant, 1989).

The vast majority of research conducted on adjustment to prison has focused on male inmates because they substantially outnumber female inmates; however, of the 1.4 million state and federal prison inmates incarcerated in the United States, 101,179 are women (Bureau of Justice Statistics, 2005).¹ According to Harrison and Beck (2005), between the years of 1995 and 2005 the population of incarcerated females grew 57% and has been on the rise since. This increase in female offenders has forced correctional officials to consider the unique needs of this population because what applies to male inmates does not always translate to what works with female inmates. Research that has been conducted among female inmates clearly shows their experience to be different than male inmates (Clay, 1998). In order for prison administrators to effectively manage female offenders they must become aware of how female offenders adjust to prison and the unique challenges they face.

Sexual offenders have been identified as a group who may present unique challenges to institutions, particularly during their initial adjustment phase, although little research has been conducted on incarcerated sexual offenders (Seto & Barbaree, 1999; Seto & Lalumiere, 2000). The scant research that has been conducted with incarcerated sex offenders has indicated they are fearful and generally have difficulty adjusting to prison (Schwaebe, 2005). Sexual offenses are

¹ Most of the scant research that has been done has focused on male offenders. As such, the reader should assume the research presented below was conducted with male participants, unless otherwise specified.

thought to be a violation of the convict code of conduct; therefore sexual offenders are subject to harassment and violence. Incarcerated sexual offenders likely face a different and possibly more difficult adjustment experience than other types of incarcerated offenders (Schwabe, 2003). Additionally the sexual offender population appears to have a high prevalence of mental health problems, which can further complicate their ability to adjust to the prison environment (Kafka & Hennen, 2002).

An even more unique, and less studied group is comprised of incarcerated female sexual offenders. Very little research has been conducted on this population in general and even less has examined their prison adjustment experience. Although less than 10% of all sexual assault cases involve female offenders, researchers have reason to believe sexual assaults perpetrated by females are underreported (Federal Bureau of Investigation, 2006). As public attention to the matter increases, researchers expect arrest and incarceration rates of female sexual offenders will similarly rise (Becker, Hall, & Stinson, 2001). Just as incarcerated male sexual offenders pose unique challenges to institutions, incarcerated female sexual offenders may also require special management.

Many factors influence institutional adjustment including sexual offender status, but this relationship has not been fully elucidated. Relatively few studies have been conducted on this topic. The aim of this study is to examine the institutional adjustment of male and female sexual offenders as compared to male and female non-sexual offenders, respectively within the first six months of incarceration. Further, the similarities and differences in adjustment between male and female sexual offenders will be explored. In order to examine the interaction of sexual offender status and adjustment to prison, offender characteristics and characteristics of the prison environment that are known to impact adjustment must first be reviewed.

REVIEW OF THE LITERATURE

Institutional Adjustment

As offenders transition from society to prison, or a “total institution” (Goffman, 1961), they must adapt to a new society and culture with its own unique values and roles (Hensley, Wright, Tewksbury, & Castle, 2003). The “total institution” is a closed, single-sex community separated from the broader society both socially and physically. The prison administration dictates the structure and content of an inmate’s day to day activities. Inmates are, however, able to formulate and uphold their own sub-culture. Einat and Einat (2000) state “the norms and values of the inmate code form the core of an inmate subculture, providing its members with informal means to gain power and status, thereby, a way to mitigate their sense of social rejection and compensate for their loss of autonomy and security” (p. 309). This sub-culture includes rigid behavioral expectations and social roles.

When an inmate arrives at the institution they must learn the values, attitudes, and behavioral expectations of the institution or they could face formal and informal sanctions at the hands of prison staff or inmates. Formal sanctions are issued by correctional staff when an inmate breaks official prison rules and may range from verbal reprimand to placement in segregated housing units (i.e., solitary confinement). Informal sanctions may follow the violation of unwritten rules of the prison sub-culture, which is enforced by inmates. These informal sanctions can range from exclusion in social groups, to harassment, to physical or sexual assault, and in the most extreme cases, death (Hensley et al., 2003). To further complicate matters, the inmate code often requires behavior that violates official institutional rules (Wellford, 1967). Einat and Einat (2000) describe this concept: “This code is directly linked to the process of socialization and adaptation to prison life” (p. 309).

Researchers have put forth the indigenous (also known as the deprivation model) and importation approaches to explain adaptation to prison. According to Dhami, Ayton, and Lowenstein's (2007) description of the indigenous approach, an inmate's response to the prison environment is driven by the "pains of imprisonment" (Sykes, 1958, p. 63) and the resulting deprivation. When an individual is incarcerated many of their freedoms are taken away and they are physically separated from their family and friends. The importation model maintains an individual brings their values and attitudes to prison with them (Irvin & Cressey, 1962). The importation approach dictates an inmate's adaptation to prison is contingent upon pre-prison lifestyle and characteristics, such as education, employment, substance abuse, and/ or relationships (Dhami et al., 2007). Research on gangs also gives support to the importation approach because individuals enter prison with their gang affiliation and this may impact their institutional behavior (Jacobs, 1977).

Although there have been studies that offered support to either model, a body of research lends support to the interaction between the two models. Dhami et al. hypothesized the two models are complementary because an inmate's experience prior to imprisonment can directly impact how they will respond to the deprivation inherent in the prison environment. Their findings indicated the indigenous and importation approaches independently had a greater predictive value of adaptation than the models together, after controlling for length of sentence and security level. More specifically, time served and quality of life before prison independently predicted adaptation.

Studies on institutional adjustment have varied greatly in how adjustment is defined and measured. Adjustment, as defined by Webster's Dictionary is the process of modifying, adapting, or altering one's behavior to align with a new environment or circumstance (*Webster's*

Encyclopedic Unabridged Dictionary, 1996). Another definition of adjustment suggested in the literature is the degree to which an individual controls or expresses emotions such as anger, depression, or anxiety (Eurelings-Bontekoe, van der Slikke, & Verschuur, 1997; Rotenberg, Kim, & Herman-Stahl, 1998). Still another definition of adjustment proposed is an individual's pattern of reacting to stress, across domains, including emotionally, behaviorally, and physically (Whitney, 2001). Incarceration is a highly stressful event that requires an individual to change their behavior to accommodate the new cultural norms and rules of the institution (Harding & Zimmerman, 1989). Transitioning into the prison culture can be quite difficult and stressful (Mohino, Kirchner, & Forns, 2004; Van Tongeren & Klebe, 2010). Some individuals are more effective than others at adapting to the novelty of the prison environment. Researchers have sought to identify the characteristics inherent in these individuals that are responsible for easing the transition to the prison environment.

There is not a consensus among researchers on how best to measure adjustment. Different studies have attempted to measure adjustment simply by using behavioral correlates, such as number of disciplinary infractions, or emotional correlates, such as self-report measures of stress, coping, and mental health symptoms. The Prison Adjustment Questionnaire was the first measure developed specifically for examining prison adjustment (PAQ; Wright, 1985, 1986). Wright developed the measure during the course of a larger study on the effectiveness of three inmate classification systems. His sample consisted of 942 male inmates, across 10 medium and maximum security New York prisons. Analyses showed the PAQ items loaded on three factors: External, Internal, and Physical. The External dimension consisted of problems the respondent experienced in relating to others around him. Wright used this dimension as an indicator of aggression and found scores on the External dimension were correlated with official records of

assaultive disciplinary infractions ($r = .11$). The second dimension encompasses difficulties the respondent is having related to coping with incarceration; more specifically, the Internal dimension examines sleep problems, fear, anger, and overall discomfort with people around them. Interestingly, results showed number of sick calls correlated with numbered disciplinary infractions for aggressive behavior ($r = .25$). Wright reasoned this relationship could be due to high anti-sociality among aggressive inmates, who take sick calls to avoid responsibility. The relationship could also be attributed to the possibility aggressive inmates require more medical attention. The Physical dimension included real, physical problems the respondent may encounter, such as physical trauma, sickness, or being taken advantage of. The results of the study also showed low to moderate correlations were found among the three factors of the PAQ. Wright speculated when inmates experience one problem, they are likely to experience other problems.

The factor loadings on the PAQ range from moderate to high ($r = .35$ to $.76$) and few items load on more than one factor. The three dimensions of the instrument are slightly correlated ($r = .28$ for the Internal and External; $r = .38$ for the External and Physical; $r = .39$ for the Internal and Physical). As described by Wright, the internal consistency of the instrument ranges from adequate to good. Coefficient alpha for the External dimension equals $.74$, the Internal dimension equals $.67$, and the Physical dimension equals $.50$. Wright states these coefficient alpha levels are acceptable considering the small number of items comprising each dimension.

Warren, Hurt, Loper, and Chauhan (2004) used the PAQ in a study of maximum security female inmates ($n = 777$) and found a two-factor model to better fit the data. She derived a Conflict factor which captures feeling angry, arguing, fighting, and being injured and a Distress

factor which captures feeling uncomfortable around people, sleep problems, being sick, and fear of attack or exploitation. The factor loadings for the Distress Scale ranged from .34 to .68 and the loadings for the Conflict Scale ranged from .26 to .78. The coefficient alpha values for internal reliability were .69 for the Distress Scale and .70 for the Conflict Scale. The researchers found the PAQ to correlate with other measures of psychological distress and self-report of perpetrating violence and victimization, as well as institutional reports of violence and victimization. Warren states the three factor model proposed by Wright may minimize the adjustment problems experienced by female inmates as many female inmates come from more chaotic and harsh environments than the prison environment.

A second study by Warren (2008) of 802 maximum security female inmates, replicated the findings of her 2004 study and again lent support to the use of a two factor model on the PAQ when applied to female inmates. One major findings of the study was the high correlation between self-reported victimization on the Prison Violence Inventory (PVI) and psychiatric distress on the PAQ. A second relevant finding was nonminority status and prior incarceration were predictive of scores on the Distress Scale and younger age, being unmarried, incarceration for a violent crime, and longer time served predicted scores on the Conflict Scale.

Van Tongeren and Klebe (2010) developed a system to measure adjustment across three broad domains, including environmental adjustment, defined as effective navigation of the prison culture by learning the social norms and standards of the system; societal rehabilitation, defined as staying in touch with the values of the broader society outside of prison with the ultimate goal of reintegration; and reduction of criminal thinking and behavior. The results of this study of female offenders lent support to the assertion that adjustment is a multidimensional concept. It is clear that defining adjustment in a singular manner or inconsistently, as has been done in the

past, overlooks other important factors related to adjustment and oversimplifies a complex process.

Adjustment and ability to adjust varies by individual. The fact that inmates respond differently to the prison environment points to possible underlying factors that influence an individual's adjustment to the prison environment (Clements, 1979; Parker & Brown, 1982). Individual characteristics of the inmate will determine how they approach situations, manage stress, and respond to the harshness of the prison environment. Researchers have identified a number of characteristics of the offender and environmental factors related to institutional adjustment. It is important to also consider the interaction between these sets of factors when examining adjustment. Many of the factors listed are closely related to one another.

A thorough discussion of environmental or institutional factors that impact adjustment is outside the purview of this study; however, a brief discussion is warranted. Characteristics of individual institutions have an impact on the behavior of inmates within the prison (Wright, 1993). Factors such as crowding, sleeping arrangements (cells vs. dormitories), noise levels, temperature, access, architectural variables, and other factors have been identified as impactful to inmate behavior (for a detailed review see Wright & Goodstein, 1989). Institutions have unique and varied cultures that can also fluctuate within the institution. Researchers within the field of organizational psychology have documented a link between the social climate of an institution and the behavior of individuals within it (Campbell, Dunnette, Lawler, & Weick, 1970; Murray, 1938). The security level of an institution may also influence the experience of inmates (Reitzel & Harju, 2000).

Correlates of Adjustment to Prison

As an individual enters the prison environment they bring a set of individual characteristics and general approach to navigating the world. As they confront the stress inherent in being imprisoned they will employ different strategies to manage the stress. Newly incarcerated individuals will also attempt to strategize how best to keep themselves safe in this dangerous environment. Some individuals will effectively navigate the prison environment, with minimal stress, and threats to their safety and others will be less successful. Researchers have identified a large number of factors that influence how well an individual will adjust to the prison environment. The factors discussed in this paper do not comprise an exhaustive list. In addition to those that will be discussed below religiosity (for a more detailed discussion see Clear & Sumter, 2002; Jackson & Coursey, 1988; Kerley, Matthews, & Blanchard, 2005), motivation to change (for a more detailed discussion see Sellen, McMurrin, Cox, Theodosi, & Klinger, 2006), and self-esteem (for a more detailed discussion see Bill, 1998; Edgar & O'Donnell, 1998; Greve & Enzmann, 2003; Soderstrom, Castellano, & Figaro, 2001) are known to impact adjustment to prison.

Coping. The concept of coping refers to the cognitive and behavioral strategies an individual utilizes to manage stress (Lazarus & Folkman, 1984). Coping strategies are employed in response to an interruption to routine, generally a stressor; therefore, coping can be considered an adjustment strategy (Coelho, Hamburg, & Adams, 1974). Effective coping strategies must be tailored to the stressor or situation and no single strategy is effective across all situations. Also, the amount of time an individual is exposed to a stressor impacts the type of coping strategy that will be utilized (Mohino et al., 2004). Effective coping strategies within a prison environment may be different than those used in society. In order to make a successful transition into this

unique and harsh environment, the inmate must possess a variety of coping skills (Van Tongeren & Klebe, 2010).

Flanagan (1981) attempted to examine the coping strategies employed by a group of 59 long-term inmates, who were at least five years into their sentence. A theme emerged among the participants of focusing on their incarceration and not looking beyond. The participants also reported they tended to associate with other long-term inmates, rather than those with short sentences. Findings from Johnson and Dobrzanska (2005) were complimentary. The researchers interviewed five lifers who were considered to be “well-adjusted,” defined as having committed few rule infractions. The researchers inquired about how the participants navigated day to day institutional problems without using violence. A number of themes and commonalities emerged from the interviews. The first commonality the researchers found was that the inmates interviewed underwent a process of acceptance about their incarceration and the circumstances of their life. This included acknowledgment of the limited control one has over how they are treated in prison. To adjust the lifer must have a mental shift in which they make a conscious decision to submit to the rules set forth by the institution, rather than fight against them. The interviewees learned to cope by living in the moment and appreciating what they had. A second theme of developing a routine emerged. The interviewees discussed the sense of autonomy and comfort that resulted from having a personal, daily routine. A third theme was the importance of connection and relationships. The participants spoke of developing empathy, particularly for other inmates around them. Many of the interviewees took on mentorship roles with younger inmates and/ or joined a religious community as a means to feel personal worth and purpose. Not only did relationships reduce loneliness, they also allowed the participant to look beyond his circumstance.

Zamble and Porporino (1988) conducted a longitudinal study of 133 male inmates with short sentences (2-5 years), medium-length sentences (6-10 years), and long sentences (10 years-life). The authors began by examining the inmate's coping responses to situations prior to incarceration and found their coping strategies to be ineffective overall, and at times counterproductive to dealing with life problems. Of the inmates sampled 64% reported using alcohol and drugs as a means of coping, 52% reported using stress-reducing methods (i.e., engage in something pleasurable such as listening to music, walking, riding in the car), 46% reported avoidance strategies, and 32% reported seeking social support. The authors then gauged the efficacy of the participant's coping strategies while incarcerated. The results showed the coping mechanisms appeared to be more effective in prison than outside. Another aim of the study was to identify predictor variables of adjustment. They defined adjustment as number of disciplinary infractions, medical complaints, and level of depression, anxiety, and anger. Reported alcohol abuse was the best predictor of disciplinary infractions and suicide attempts was the best predictor of medical complaints. Also, focus on future was strongly associated with higher anxiety and having friends/ associates was mildly associated with lower depression scores. They also found during the first few months of incarceration depressive feelings decrease as feelings of anger increase.

Social support and relationships may counteract the stress resulting from incarceration (Sarason, Sarason, & Pierce, 1990). Forming relationships and gaining support in the prison environment can be used as a means of coping. See *Social Support* section for more detail.

In regard to coping among female inmates, the literature is quite thin. An important study by Negy, Woods, and Carlson (1997) explored a number of variables associated with positive and negative prison adjustment among female inmates. The researchers administered a battery of

questionnaires to 153 female inmates in a minimum security institution to determine the manner in which they coped with incarceration. Women who faced their problems, planned ahead, used restraint in reacting to stressors, utilized religion, and reframed negative events positively experienced less anxiety, anger, and depression. Female participants who isolated from social contact and had lower self-esteem experienced more depression and anxiety. The women who sought pro-social outlets to cope with the stress of prison life were less distressed than those who coped by isolating or acting out. Overall, coping strategies accounted for 52% of the variance in measures of emotional adjustment.

Locus of control. Reitzel and Harju (2000) defined locus of control simply to mean the amount of control an individual feels they have over the events that happen in their life. Individuals with an internal locus of control orientation feel they have a great deal of control over the events that happen to them, whereas individuals with an external locus of control feel they have less control over their life and believe luck or fate is at work. Locus of control should be viewed on a continuum. Individuals who have an external locus of control may experience more stress, fail to implement problem-solving strategies, and feels as if they have no control to influence the outcome of events in their life (MacKenzie & Goodstein, 1986; Pugh, 1991). Individuals with an internal locus of control are likely to blame themselves excessively for unfavorable outcomes and attribute any failure to their personal inadequacies rather than view the given situation objectively (Strickland, 1978). Individuals at both ends of the continuum are likely to experience learned helplessness and increased feelings of depression (Billings & Moos, 1982). A moderately internal locus of control has been shown to be most effective in minimizing stress (Krause & Stryker, 1984).

Research has long shown locus of control to be a mediating factor in coping with stress (Goodstein & Wright, 1986; Lazarus & Folkman, 1984; Rotter, 1966). Further, whereas mood can fluctuate broadly, locus of control appears to be a stable personality trait (Goodstein, MacKenzie, & Shotland, 1984; Murphey, 1990). Zamble (1992) found inmate's ratings of depression steadily decreased over the study period, while locus of control remained consistent. Interestingly, in Reitzel and Harju's study sample more African American inmates had an internal orientation and more Caucasians had an external orientation. In light of this finding, the authors suggest Caucasian inmates may be less adaptive to the prison environment. Overall, inmates who feel a greater sense of control over their life adjust to prison better (Johnson, 2002). The consensus of the research is that internalized locus of control allows for better stress management and coping, which may in turn improve institutional adjustment overall.

Social Support. The research supports the assertion social support, regardless of if it originates from within or from the outside, helps inmates adjust better and faster to the prison environment (Jiang & Winfree, 2006). Social support can help inmates meet their interpersonal needs and/ or help them to foster a feeling of safety and security. Researchers found participation in prison education programs provides a form of social support to inmates. It was found that these inmates committed fewer rule violations (Gaes & McGuire, 1985; McCorkle, Miethe, & Drass, 1995). A second explanation of the power of social support among inmates is the idea that social support, especially if derived from the outside, may reduce the discomfort associated with the negativity inherent in the prison environment, and thereby decrease instances of documented rule violations (Gordon, 1999; Toch & Adams, 1989).

Jiang and Winfree surveyed more than 14,000 male and female inmates, across a number of institutions to examine how social support, gender, and prison adjustment are related. Their

main finding uncovered significant gender differences. Overall, female inmates in their sample had significantly more social support than male inmates. The authors proposed several reasons this might be the case. The first reason is women are more relational in general and therefore more likely to seek out social opportunities, like clubs or social groups. A second reason is female prison culture and dynamics are more conducive to relationship building.

A second major finding in Jiang and Winfree's study was the gender differences in approach to relationships. It appears males are more focused on getting through their time, acting tough, and self-reliance to cope with the difficulties of being incarcerated. In contrast, females remain very involved in relationships outside of prison, particularly with their mothers and their children (Datesman & Cales, 1983; Lord, 1995; Owen, 1998; Sykes, 1958; Ward & Kassebaum, 1965). Female inmates reported communicating with family members outside of prison more often than male inmates (Goetting & Howson, 1983; Pollock, 2002). Female offenders also involve themselves in relationships in prison. Frequently these relationships take the form of small, family-like groups (Owen, 1998; Ward & Kassebaum, 1965). Some more recent studies have noted, however a shift away from family-like groups to a more isolative approach to incarceration (Greer, 2000; Kruttschnitt, Gartner, & Miller, 2000).

In regard to variables related to rule breaking behavior, only marital status impacted monthly rule violations differently between males and females. Married male inmates were less likely to have been written up for rule violations than unmarried males. No difference was found between married and unmarried female inmates. The authors concluded married male inmates adjusted better to prison overall. This result reinforces Pollock's (2002) finding that wives are more likely to visit their husbands in prison and care for their children than husbands are to visit their incarcerated wives and care for children.

Interestingly, Lindquist (2000) found being married, a parent, and experiencing social support within the prison were associated with worse mental health outcomes. This finding can be interpreted in two different ways. The first is that social connections have a detrimental effect on mental health because of the feelings of frustration and loss of control. A second way of looking at the finding is that decline in mental health is due to the discrepancy between expected social support and actual support received. The more discrepant the two, the worse the anxiety, depression, and hopelessness the individual may experience (Biggam & Power, 1997). Further, a lack of perceived emotional support may exacerbate feelings of loneliness and depression.

Mental Illness. In the last 20 years an increased number of mentally ill inmates have entered the prison system due to deinstitutionalization and other social factors (Lamb, 1989; Shenson, Dubler, & Michaels, 1990; James & Glaze, 2006). The scope of the problem is broad. Fazel and Danesh (2002) examined the results of 62 studies, from 12 countries to determine the prevalence of certain mental disorders among inmates ($n = 22,790$). They found one in seven inmates in Western countries have a diagnosable mental illness. In their sample 3.7% of males and 4% of females had been diagnosed with a psychotic illness; 10% of males and 12% of females in the sample were diagnosed with major depression; and 65% of males and 42% of females were diagnosed with a personality disorder. The percentages reported for personality disorders included the diagnosis of Antisocial Personality Disorder, which was diagnosed in 47% of the males and 21% of females. Female inmates are most likely to be diagnosed with anxiety, depression, substance abuse, and/ or Borderline Personality Disorder, whereas male inmates are most likely to be diagnosed with Antisocial Personality Disorder and/ or substance abuse (Jordan, Schlenger, Fairbank, & Caddell, 1996).

The most common personality disorders in the incarcerated population are from Cluster B in the DSM-IV-TR (Jordan, Schlenger, Fairbank, & Caddell, 1996). The defining characteristics of the Cluster B personality disorders, particularly poor coping, emotional lability, and a proclivity for acting out, are consistent with characteristics of inmates who adjust poorly to prison (Bland, Newman, Thompson, & Dyck, 1998; Eurelings, Bontekor, van der Slikke, & Verschuur, 1997). Personality disordered inmates may therefore represent a group that is likely to experience adjustment difficulties. Some researchers, however, have suggested inmates with Antisocial Personality Disorder experience less emotional turmoil (Boothby, 2001). Borderline Personality disorder in particular appears to have a more profound impact on functioning than some of the other personality disorders, in that individuals are more likely than others to report prior mental health treatment and to have higher reported levels of interference from their mental disorder (Black et al., 2007). The high prevalence of Borderline Personality disorder and the likely negative impact of the diagnosis on adjustment, may make the diagnosis an important component in predicting adjustment.

Mental illness has been identified as a factor that profoundly impacts adjustment to prison (Swanson, Morrissey, Goldstron, Rudolph, & Manderscheid, 1993). Inmates have been identified as a group likely to have psychological problems due to the inherent stress of incarceration and lack of or ineffective coping skills (Toch, 1977; Zamble & Porporino, 1988). The complexity of mental health issues and comorbidity among inmates also makes them susceptible to victimization. Male inmates with a mental disorder are 1.6 times more likely to be physically victimized than males with no mental disorder and female inmates with a mental disorder are 1.7 times more likely to be victimized. African American and Hispanic inmates were more likely to be physically victimized than Caucasian inmates (Blitz, Wolff, & Shi, 2008).

DiCataldo, Greer, and Profit (1995) conducted a study of maximum security inmates to examine the relationship between mental disorders and prison adjustment. They defined adjustment as institutional rule infractions and incidents of violence. The researchers administered a short mental health screening questionnaire to participants to determine the presence of serious mental illness. The results showed participants rated higher on the schizophrenia scale had a higher number of incident reports within the first 90 days of incarceration than others. This finding compliments earlier research that severely mentally ill inmates are often disruptive in a normal prison setting (Adams, 1986; McShane, 1989; Morgan, Edwards, & Faulkner, 1993; Toch & Adams, 1986, 1987). The number of incident reports among the inmates identified as high on the schizophrenia scale appeared to decrease over time and eventually decreased to the level of offenders identified as negative on the schizophrenia scale. The authors offered three possible explanations as to why this may be. The first possible explanation was individuals rated high on the schizophrenia scale were initially slow in their adjustment and overtime learned institutional rules and appropriate behavior. A second explanation is staff may have learned how to better manage these individuals and possibly became more lenient in response to their rule breaking. The third explanation is these individuals may have received clinical intervention.

It is well-established in the literature that inmates with mental health problems are disproportionally involved in prison infractions and violent misconduct (Ditton, 1999; James & Glaze, 2006; Toch & Adams, 2002). When adjustment is measured by misconduct and/ or rule violations it is clear mentally ill offenders have adjustment problems (McShane, 1989; Morgan, Edwards, & Faulkner, 1993; Toch & Adams, 1986, 1987; Toch, Adams, & Green, 1987). These individuals are more likely to be victimized and therefore be involved in conflict. Because prison

officials tend to discipline all inmates involved in a given altercation equally, mentally ill inmates may unfairly acquire a reputation of acting aggressively (Toch & Kupers, 2007). Mentally ill offenders are especially vulnerable to being preyed upon by other inmates (DiCataldo, Greer, & Profit, 1995). Wolff, Blitz, and Shi (2008) sampled 20,000 male and female inmates and found inmates with mental illness are more likely to perpetrate sexual assault, although the results were only statistically significant for male inmates. Approximately one in twelve male inmates with a mental illness reported sexual victimization by other inmates as compared with one in 33 male inmates without a mental illness, over a discrete six month period. Of the inmates with a mental illness, 23.4% of females and 8.3% of males sampled reported being the victim of sexual assault. Both male and female African American and Hispanic inmates with a mental illness reported a higher incidence of sexual victimization than White inmates with a mental illness. In the wake of a number of legal decisions, institutions are required to evaluate and treat inmates for mental illness to minimize the risk of victimization (Metzner, Miller, & Klienasser, 1994).

Although male and female inmates experience similar stressors related to imprisonment, it appears females suffer more psychological distress (Paulus & Dzindolet, 1993) and have more significant mental health problems (Lin, Dean, & Ensel, 1986; Lindquist, 2000; Pearlin, 1989; Turner, Lloyd, & Wheaton, 1995). Further, female institutions in general have fewer mental health resources available to them (Chesney-Lind, 1998). This point is illustrated by the high rate of suicide among female inmates, which is 20 times more common than females in the general population. Comparatively male inmates commit suicide five times more often than males in the community (Fazel & Benning, 2009). In contrast to the other studies, Carcedo, Lopez, Orgaz,

Toch, and Fernandez-Rouco's (2008) found female inmates were more willing to reach out to form relationships than men and therefore had better mental health.

Length of Sentence. According to Thompson and Loper (2003) the earliest research on institutional adjustment focused on the "prisonization" phenomenon, first coined by Clemmer (1958), which is defined as the process of internalizing the customs and norms of the prison subculture. Clemmer noted a decline of physical and psychological functioning over the course of an inmate's prison sentence. More recently, researchers have indicated that inmates tend to adjust better over the course of their sentence (Flanagan, 1980, 1992; Toch, 1975; Zamble, 1992). Zamble's (1992) longitudinal study on the behavior and adaptation of 25 inmates, most of whom were serving life sentences, indicated psychological functioning was relatively stable over the course of incarceration. He did document a gradual decrease in psychological discomfort from the beginning of the prison term and credits this decrease with the constancy of the prison environment. Contrary to the prisonization theory, Zamble found the emotional state, health, and conduct of these inmates improved over time. Interestingly, inmates reported less socializing with other inmates as their sentence progressed. It is important to note that many of the inmates in Zamble's study had very long sentences, and their experience may not reflect the experience of inmates with shorter sentences.

MacKenzie and Goodstein's (1985) study of offender adjustment indicated short-term inmates may adjust more quickly than long-term inmates within the first three years of incarceration. The researchers speculated short-term inmates could adjust more quickly because of their anticipated release. Participants who had been imprisoned for less than three years, but were serving a long sentence reported the highest rates of anxiety, depression, psychosomatic illness, and fear of other inmates than participants who were serving short sentences. Further,

inmates first entering prison who are anticipating serving a long sentence appear to experience more stress than other inmates (Winfrey, Mays, Crowley, & Peat, 1994).

In a study by Flanagan (1980), his sample was divided into either a “short-term” or “long-term” incarceration group. The results showed younger inmates committed more infractions than older inmates in both groups. After controlling for age, Flanagan found long-term inmates committed fewer offenses than short-term inmates. Interestingly, short-term inmates committed fewer infractions during the first and fourth quartiles of their sentence, whereas long-term inmates committed infractions at a consistent rate across quartiles. He speculated this trend among short-term inmates was due to anxiety and adjustment to prison in the first quartile and release incentives during the fourth quartile. Flanagan reasoned the consistency in behavior among long-term inmates was related to age, problem solving strategies over time, and the lack of a release incentive. A 2002 study by Toch and Adams showed inmates, regardless of sentence length, committed more infractions toward the beginning of incarceration with a progressive decline as sentences progressed. They did find differences in infraction rates as a function of inmate age, with older inmates committing infractions at a more consistent rate than younger inmates.

In the case of inmates sentenced to life in prison the adjustment process is similar, but may differ in some ways. These individuals undergo an initial period of adjustment that may vary in length, during which they may react internally through depression (Wichmann, Serin, & Motiuk, 2000) or externally by acting out (Toch & Adams, 2002). Lifers must come to see the prison as their home and other lifers as a type of family (Paluch, 2001). Most lifers studied in the research seem to choose to avoid trouble and strive to take advantage of the opportunities available (Johnson, 2002).

The impact of sentence length on female offenders is sparse. Women with longer prison sentences tended to act out violently while incarcerated and were involved in more incidents of prison misconduct than women with shorter sentences (Casey-Acevedo & Bakken, 2001). An early study by MacKenzie, Robinson, and Campbell (1989) of 141 female offenders in Louisiana, showed newly incarcerated inmates were more concerned about safety than those who had been imprisoned longer. Also, newly incarcerated participants with shorter sentences felt they had less control over events than newly incarcerated participants with longer sentences. Lastly, participants who had been incarcerated for at least two years, with longer sentences reported the most situational problems (i.e., wishing for more privacy, missing important others, feeling sexually frustrated, etc.). The implication of this finding is women with longer sentences experience more situational problems as they get further into their incarceration. Interestingly, no significant differences were found in adjustment between inmates with different sentence lengths. Taken together this body of research does not offer a consensus as to whether sentence length is related to improved coping or adjustment.

Thompson and Loper (2003) summarized the contradictory findings regarding the relationship between sentence length and adjustment in male and female inmates. Long-term male inmates committed disciplinary infractions at a lower rate than short-term inmates (Flanagan, 1980) and long-term female inmates committed infractions at a higher rate than short-term female inmates (Casey-Acevedo & Brakken, 2001). Long-term male inmates reported a decrease in psychological symptoms over time (MacKenzie & Goodstein, 1985; Toch & Adams, 2002; Zamble, 1992) and long-term female inmates reported no difference in emotional adjustment over time (MacKenzie, Robinson, & Campbell, 1989). Long-term male inmates reported better adjustment to the prison environment over time than short-term male inmates

(Toch & Adams, 2002; Zamble, 1992) and long-term female inmates reported poorer adjustment to the prison environment over time than short-term female inmates (MacKenzie, Robinson, & Campbell, 1989). Thompson and Loper speculated the conflicting findings of these studies may be related to how short-term and long-term sentences were defined by the researchers.

Thompson and Loper (2003) sought to shed more light on female prison adjustment. They divided their sample of 692 women according to sentence length (long-term sentences were defined at 10 years or more, medium-term sentences were 2-10 years, and short-term sentences were less than two years). Overall the results showed short-term inmates were better adjusted to prison than long-term inmates and the results are in agreement with past findings. The researchers speculated why the differences in adjustment exist. Long-term inmates may be less concerned with rule breaking because they already have a long sentence; whereas, short-term inmates may worry their sentence would be lengthened for bad behavior. A second possible explanation of the findings is the separation of female inmates from their families may intensify emotional problems over time. Thirdly, long-term inmates may be inherently more aggressive than short-term inmates and may have a longer sentence as the result of a more violent crime.

Age. It is fairly well established that younger inmates experience more difficulty with institutional adjustment than older inmates (Flanagan, 1979; Honig, 1980). Younger inmates also experience more fear of victimization, which may in turn make them more vulnerable to assault (McCorkle, 1993). The vulnerability of younger inmates may also be related to the fact that they are unlikely to have prior institutional experience (Wright, 1991). Wright, Harris, and Woita (1985) found an inverse relationship between maladjustment and age in their study of new inmates. One study of male inmates found younger inmates experienced higher levels of depressive symptoms, anxiety, and anger than older inmates (Boothby & Durham, 1999).

Malbi et al. (1985) hypothesized institutional violence was largely a function of age. The researchers examined rates of assault in two federal prisons, one that primarily housed younger inmates, and another that housed mostly older inmates. Not surprisingly the facility with younger inmates had a higher assault rate than the other. When some older inmates were transferred to the facility housing younger inmates, assault rates decreased and when younger inmates were transferred to the facility housing mostly older inmates, assault rates increased. Hemmens and Marquart's (1999) findings suggest younger inmates perceive prison to be more dangerous and threatening than older inmates. This perception may contribute to why younger inmates are more often involved in prison violence. The same is true of female inmates, with younger women experiencing a greater difficulty adjusting to prison (Jensen, 1977).

Race. Race or cultural background is a variable that may impact adjustment to prison. Sociocultural factors may influence the behavior, attitudes, and values of its members (Diaz-Guerrero, 1977). In a series of studies by Jacob (1974; 1967; & 1977), Black inmates appeared to be more cohesive and unified than White inmates. Jacob attributes this cohesion to the racism and discrimination Black inmates were subject to prior to coming to prison, particularly in their dealings with the criminal justice system. Carroll (1982) hypothesized Black inmates were more successful at adjustment to prison because many Black inmates came from impoverished communities where they were required to be "tough."

A number of studies have found Black inmates to be more likely to be involved in conflict than White inmates (Hemmens & Marquart, 2007). Fuller and Orsagh (1977) found Black inmates were more likely than White inmates to be the aggressor and other studies have indicated that in interracial conflicts Black inmates are more likely to be the aggressor and White inmates the victim (Bowker, 1980; Lockwood, 1980; Wooden & Parker, 1982). A competing

body of research has shown the studies that found non-Whites to be the more likely aggressor are confounded by other factors like age, number of prior arrests, and substance dependency (Ellis, Grasmick, & Gilman, 1974; Goodstein & MacKenzie, 1984; Wright, 1988; Zink, 1957). Further, other studies have suggested the racial disparity among Whites and non-Whites in prison misconduct can be attributed, at least in part, to racial discrimination by prison administration and correctional officers (Flanagan, 1983; Howard, Winfree, Mays, Stohr, & Classon, 1994; Poole & Regoli, 1980; Wright, 1988).

Other racial differences that have emerged in the literature indicate White inmates may experience more stress and fear than Black inmates (Hemmens & Marquart, 2000), are more likely to engage in self-harm behavior (Wright, 1988), and experience more psychological problems, including breakdowns and depression (Johnson, 1987). A similar conclusion was drawn for female inmates, with White females experiencing greater adjustment difficulties than Black females (Jensen, 1977). Goodstein and MacKenzie (1984) however, found no racial differences in anxiety level or predisposal to depression among male inmates.

Violence and Victimization

The concepts of violence and victimization are important in the discussion of prison adjustment because of their prevalence in the prison culture (Bowker, 1980; Irwin, 1980; Johnson, 1987). Violent acting out may result from the overcrowding of a large number of individuals with antisocial tendencies and scarce resources (Bowker, 1980; Toch, 1985; Wolfgang & Ferracuti, 1976). According to the Bureau of Justice Statistics (2003), in the year 2000 there were 51 homicides in federal and state prisons and 28 of every 1,000 inmates were physically assaulted.

It is a well-known fact that victimization and violence in prisons is underreported because “snitching” violates the inmate code and can make an individual more vulnerable to assault and other negative outcomes in the future, therefore official reports of violence within prisons are likely to be a significant underestimate (Bowker, 1980; McCorkle, 1993; Wolff, Blitz, Shi, Siegel, & Bachman, 2007). In a well-designed study of 21,000 male and female inmates, Wolff et al. (2007) sought to capture the true rates of institutional violence and victimization. It is important to note the results were inclusive of inmate on inmate violence and staff on inmate violence. Over a six month period, 20% of their sample reported experiencing some form of physical violence. Although, rates of violence varied by individual institution, the results show rates of physical assaults among male prisoners were 18 times higher than the population at large and physical assaults among female prisoners were 27 times higher.

A large body of research has examined predictive factors of violence; particularly because it is of great interest to institutions to be able to identify inmates at higher risk of perpetrating violence (Cunningham & Sorensen, 2007). Inmate age has been established as a risk factor for misconduct, with younger inmates committing more infractions in general (Bench & Allen, 2003; Flanagan, 1980; Gottfredson & Hirschi, 1991; Hirschi & Gottfredson, 1989), and more violent infractions than older inmates (for a more detailed discussion see *Age* section; Cooper & Werner, 1990; Cunningham & Sorenson, 2006a,b, 2007; Cunningham, Sorensen, & Reidy, 2005; Sorensen & Pilgrim, 2000; Sorensen & Wrinkle, 1996; Wooldredge, 1991). Additionally, inmates affiliated with gangs more frequently engage in institutional violence (Sorensen & Pilgrim, 2000; Cunningham & Sorensen, 2007).

Some researchers have defined anger in terms of a stress reaction and therefore may be indicative of maladjustment (Novaco & Chemtob, 1998). It is well-established anger is closely

associated with aggression and violence (Kay, Wolkenfeld, & Murrill, 1988; Novaco & Chemtob, 1998). Although the relationship is not fully elucidated, difficulty managing emotions, particularly anger and a lack of healthy coping mechanisms are defining features of personality disorders, especially Cluster B personality disorders (Sinha & Watson, 1997). The presence of a personality disorder, especially of the Cluster B variety makes an individual more likely to act out violently (Nestor, 2002). Researchers have identified males as more likely to externalize anger in the form of aggression and violence and women more likely to internalize anger in the form of depression (Campbell, 1993).

Some research has examined individual factors that may make an inmate more vulnerable to assault. Although, young age is a predictor of violence, it is also a predictor of victimization with younger inmates being more vulnerable to assault (Toch, 1977). Small physical size, effeminate characteristics, having come from a middle-class background, and conviction for a sexual offense have also been shown to be related to vulnerability (Toch, 1977; Wright, 1991). Wright (1991) attempted to characterize inmates who had been victimized. His results aligned with those of past research. He found victimized inmates were less familiar with criminal culture prior to incarceration and had less correctional experience. In regard to personality characteristics, Wright noted victims seemed to fall into two categories; those that had difficulty getting along with others and had poor social skills and those that became hostile after being insulted.

Sexual violence among inmates is a type of violence that has received more attention in the literature since the passage of the Prison Rape Elimination Act (PREA) in 2003 (Blackburn, Mullings, & Marquart, 2008). Research on the prevalence of sexual assault in male prisons has yielded varying results from less than 1% to 22% of study respondents who reported

experiencing sexual coercion (Saum, Surratt, Inciardi, & Bennett, 1995; Struckman-Johnson, Struckman-Johnson, Rucker, Bumby, & Donaldson, 1996). Hensley, Castle, and Tewksbury (2003) conducted a study to examine the prevalence of sexual coercion in a female prison. They found 2% of their sample of 243 women (representing 38% of the prison population) reported perpetrating sexual assault and 4.5% reported being victimized. Struckman-Johnson and Struckman-Johnson's (2002) study of 263 female inmates, across three prisons showed 6%-19% of respondents reported they were sexually coerced and that 45% of the incidents involved staff members. According to a US Department of Justice survey, 15.2% of verified inmate-on-inmate sexual assaults involved incarcerated females as victims (Beck & Harrison, 2006). As in the community, sexual assault victims are likely to experience lasting consequences including mental health problems and increased stress which, as discussed above are likely to impact institutional adjustment.

In regard to the relationship between victimization and adjustment, Toch (1977) put forth the idea that personal safety is closely related to quality of life in prison. He also found fear of victimization in prison is generally high among inmates (Wolff & Shi, 2009). Zamble and Porporino's (1988) research added fear of victimization is associated with increased psychological and physical problems. McCorkle (1993) stated an inmate's level of fear was the strongest predictor of mental health and this result was replicated by Maitland and Sluder (1996). According to McCorkle (1992) inmates generally subscribe to one of two strategies: the first strategy, employed by older, more fearful inmates is to isolate themselves and use strategies to avoid interactions with other inmates. The second strategy, often implemented by younger inmates is to use an aggressive and proactive approach to interactions with other inmates.

Institutional Misconduct. Many researchers have argued an inmate's level of institutional adjustment could be determined by their record of misconduct within the institution. From a research standpoint, disciplinary records are easy to obtain and quantify and this may explain their popular use. Researchers also maintain past behavior is most predictive of future behavior and therefore examining institutional records of inmates is a good way to anticipate how they may behave in the future. Hanson, Moss, and Johnson (1983) examined the institutional record and personality characteristics of 337 male inmates to predict their adjustment to prison life. They found the inmates with the poorest misconduct records continued the pattern of misbehavior over time. Personality testing did not appear to accurately predict adjustment. Although acting out and rule breaking behavior may be one aspect of adjustment, it does not seem to be sufficient to measure adjustment.

Although there is substantial evidence that past institutional misconduct is predictive of future institutional misconduct among male and female inmates, the issue is complex. There is a danger in measuring adjustment using disciplinary records alone. A large body of research has shown incidence of institutional misconduct is influenced by the length of an inmate's sentence and at what point they are at in their sentence (for a more detailed discussion see *Length of Sentence* section).

Unlike in male populations, it has been difficult for researchers to use serious disciplinary infractions as a predictor of adjustment among female inmates when considering the low incidence of violent acts by female inmates compared to the high number of maladjusted female inmates (White, 1980). Rates of misconduct are higher among males than females, particularly more severe forms (Berg & DiLisi, 2006; Craddock, 1996; Jiang, 2005; Sorensen & Cunningham, 2008). Although female inmates commit disciplinary infractions at a lower rate

than male inmates, the pattern of misconduct appears to be similar. Casey-Acevedo and Bakken (2001) conducted a similar study as Flanagan (1980) with female inmates. The findings complimented those of Flanagan, with both short-term and long-term female inmates committing the fewest infractions in the first and fourth quartiles of their sentence. The results differed from Flanagan's findings with male inmates in that long-term female inmates committed more infractions than short-term inmates overall.

Female Offenders

Relatively few studies conducted on inmate populations have focused on female inmates and even fewer have compared the prison adjustment and experiences of male and female offenders. Researchers that have compared the experience of male and female inmates have shown their prison experience is significantly different and research findings in male populations cannot be simply generalized to females (Teplin, Abram, & McClelland, 1996). In addition, researchers have indicated there are fundamental differences between male and female prison facilities that may have an impact on the inmate's experience (for a more detailed review see Harris, 1993). There are few women's prisons and therefore many women are incarcerated far away from their families. As a result, female inmates receive fewer visits than males (Fox, 1982; Lindquist & Lindquist, 1997). Female institutions may also offer fewer services to inmates than male institutions, particularly in the area of psychological services (Teplin, Abram, & McClelland, 1996). Although policy changes and initiatives have increased psychiatric services available to incarcerated women, there still appears to be a disparity in the services offered to women (Thomas, 2009).

Male and female inmates likely confront similar stressors related to imprisonment. These stressors include a sense of confusion related to a drastic shift in environment and a loss or lack of heterosexual activity, emotional support, self-esteem, autonomy, responsibility, security, privacy, and property (Giallombardo, 1966; Sykes, 1958). As an offshoot of these studies, Toch (1977) identified particular items inmates reportedly considered to be needs. He found privacy, safety, structure, support, emotional feedback, social stimulation, and freedom to be areas of significant concern to his sample. A number of other studies corroborated this finding among female inmates (Giallombardo, 1966; Moyer, 1984; Pollock, 1986; Rafter, 1989). There is one major factor however, that must be accounted for that is absent from Toch's list of inmate needs and that is female inmate's separation from their children. Female inmates overwhelmingly report separation from their children as the largest stressor related to imprisonment. Due to reasons explained in more detail below, female inmates are more impacted by being separated from their children than male inmates.

It appears that female inmates are uniquely affected by being separated from their children (Fogel, 1993; Whitney, 2001). Certain researchers have put forth the idea incarceration appears to be more painful for women than men because of the disruption to their family relationships, particularly their children (Jones, 1993; Ward & Kassebaum, 1965). The majority of female inmates are mothers (60-80%; Bloom & Steinhart, 1993; Henriques, 1996) and most of these women were living with and providing for their children prior to incarceration (Baunach, 1985; Chesney-Lind, 1997; Datesman & Cales, 1983; Greenfeld & Minor-Harper, 1991; Henriques, 1982, 1996). When surveyed, female inmates ranked separation from their children as the most difficult aspect of incarceration (Fogel, 1993; Rasche, 2000). In addition to the stress

and difficulties of imprisonment, inmates who are mothers experience frustration, conflict, and guilt over separation from their children (Barry, 1987; Sykes, 1958).

The problem is compounded by the fact many of these women were single mothers and did not have spouses to take over care of their children. Stanton (1980) reported many female inmates in his study indicated their male partner left them when they became incarcerated. In one study, three out of four incarcerated women were mothers but only 22% reported they could rely on the father of their children to care for them during incarceration (Bloom & Steinhart, 1993). It appears male inmates can rely on the mother or extended family to care for their children, regardless of sentence length whereas women do not have that same level of parenting support (Jiang & Winfree, 2006).

Traditional female roles are of wife and mother. Owen (1998) surveyed female offenders at a California prison and found the women held traditional views of gender roles. They viewed themselves as wives and mothers primarily and considered their relationships with their children to be central to their lives. Once incarcerated, women are stripped of this identity (Fiftal, 1996). It appears female inmates frequently become involved in play families and homosexual relationships as a means to ease the pain of the loss. Female inmates appear to be seeking someone in close proximity who understands their ordeal (Jones, 1993). Jones outlined three types of relationships female inmates enter in response to the deprivations of the prison environment: the quasi-family, the couple, and close friendships. Ward and Kassebaum (1965) found the couple to be the primary coping mechanism among their sample of female inmates. Researchers estimated participation in couples to be 0% (Feld, 1977) to 94% (Giallombardo, 1974). Researchers have found increased social support had a positive impact on adjustment for non-incarcerated women (Carlson & Cervera, 1991; Jordan, Kaplan, Miller, Stiver, & Surrey,

1991). Accordingly social relationships are important in determining adjustment among incarcerated women and a lack of relationships can negatively impact coping and increase distress (Jordan, Kaplan, Miller, Stiver, & Surrey, 1991).

Not only do female inmates report more distress than male inmates, they also appear to report more mental health symptoms (Lindquist & Lindquist, 1997). It is unclear if the level of distress and mental health symptoms reported are in reaction to the stress of incarceration or if they predisposed the women to arrest (Whitney, 2001). Sheridan (1996) found females experienced clinically significant problems in regard to depression, self-esteem, stress, suicidal ideation, fear, ideas of reference, guilt, confusion, disturbing thoughts, memory loss, and problems with friends and family. Similar to studies with male inmates, women who possessed better coping methods adjusted to prison more easily (Negy, Woods, & Carlson, 1997).

Not all researchers agree that female inmates are more adversely impacted than male inmates by incarceration. Harris (1993) sampled 71 female inmates and 942 male inmates in New York State (11% and 10% of the total inmate population in the state, respectively) to examine differences in the prison experience of male and female inmates and replicate findings from Toch's (1977) study. Specifically, the author sought to examine inmate needs and their perception of the degree those needs were being met by the environment. The results were unexpected and contradictory to other research findings. The results indicated female inmates were significantly less concerned with freedom (defined as control over one's conduct), social stimulation, and support (services offered by the prison to assist with development). Harris speculated as to the reason behind these gender differences and reasoned differences in socialization between males and females as a likely cause. Also, female inmates reported their needs were being better met by the prison than male inmates and this may be due to the

treatment-focus in female institutions. Males reported higher levels of unmet needs and therefore higher stress than females.

Islam-Zwart and Vik (2004) examined the effect of sexual assault history on the adjustment of first-time female inmates from intake to two weeks. The researchers found women with an exclusively adult sexual assault history showed greater difficulties with external adjustment (defined as arguments or fights), than participants with no sexual assault history or those with a child and adult sexual assault history. Participants with no sexual assault history reported the most internal adjustment problems initially (defined as discomfort, difficulty sleeping, and anger), but experienced a significant decrease in these problems by two weeks as compared to the other two groups. The authors put forth hypotheses to explain these findings. They suggested women with a history of sexual abuse may have previously developed a coping system in response to their abuse that helps them to manage the discomfort and stress inherent in incarceration. A second explanation may be women with sexual assault histories led more chaotic lives prior to incarceration, and may therefore be accustomed to frequent change. Further, these women may be more resilient to the impact of the stress and perceived dangerousness of the prison environment.

Male Sexual Offenders and Institutional Adjustment

When sexual offenders enter prison they face a unique set of challenges and risks that likely differ from other inmates. Their institutional adjustment may therefore be more difficult and uncomfortable than the average offender. It is a well-known reality that sexual offending crimes, especially against children, are looked upon as the most offensive and egregious class of crimes, surpassing murder in many instances. Offending behavior against women and children

also seems to violate the criminal code and is therefore frowned upon in the criminal culture.

Inmates who do not conform to the inmate code or those not accepted into the inmate culture are at higher risk of retaliation or bullying (South & Wood, 2006; Wooldredge, 1998).

Consequently, these particular individuals may have a more difficult adjustment to incarceration (South & Wood, 2006).

When sexual offenders enter prison, they are considered vulnerable by the title of “sex offender” alone and quickly find themselves as members of a stigmatized and vulnerable group (Edgar & O’Donnell, 1998). Sexual offenders are therefore potentially subject to harassment, such as being called a “rapo” or “cho-mo,” physical or sexual assault, and extortion from other inmates (Edgar & O’Donnell, 1998; Schwaebe, 2005). Sexual offenders who are victimized in prisons have no recourse against perpetrators for fear of being called a “snitch” and facing even harsher consequences.

Prisons can be considered enclosed societies governed by the “inmate code” (Hemmens & Marquart, 1999; Sykes & Messinger, 1960). It is these rules and norms that allow “bullying of the weak by the strong, the denigration and harassment of those who offend against children (pedophiles), those who assault defenseless women (rapists), or those who engage in other types of sexual abuse or victimization of the helpless” (p. 611; Palermo, 2005). Sexual offenders are considered to be on the bottom of the inmate hierarchy, with child molesters at the very bottom.

Once incarcerated, sexual offenders quickly learn of their marginal status and the ramifications of this status. Many sexual offenders enter the correctional system naïve to the prison culture and are generally fearful. One study followed ten sexual offenders through the first six months of their incarceration by conducting monthly interviews (Schwaebe, 2003; as cited in Schwaebe, 2005). The offenders in the study had committed a variety of offenses with both adult

and child victims. The participants learned that their actual offense was less relevant than the label of “sexual offender” because other inmates could exaggerate or fabricate the facts of their offense and the sexual offender would be powerless to explain himself.

A major theme that emerged among the participants was the idea of “predator and prey” (p. 618). The participants in the study were forced to employ a variety of strategies to protect themselves. At a minimum, the participants reported that they had to lie about their offense and formulate a viable account of what brought them to prison. The participants also attempted to establish a reputation of someone that is willing to use violence to defend himself and may have joined a gang or other protective group. Interestingly, a strategy reported by study participants was the harassment of sexual offenders by other sexual offenders as a means to strengthen their facade as a nonsexual offender.

Many of the study participants described the ritual of checking an inmate’s paperwork in order to see their offenses (Schwaebe, 2003; as cited in Schwaebe, 2005). If an inmate was discovered to be a sexual offender they may be extorted in exchange for protection or keeping the sexual offender’s status a secret from other inmates. Inmates also frequently searched beyond prison walls and had associates look up a fellow inmate’s charge on the Internet.

Researchers suggest staff attitudes toward inmates are important to gauge because they influence the climate of the institution (Hogue, 1993). It is a well-known anecdote that sexual offenders and informers are not accepted among inmates, and often staff as well. The Attitudes Toward Prisoners (ATP) measure was developed by Melvin, Gramling, and Gardner (1985) to assess general attitudes towards inmates and the Attitudes Toward Sexual-Offenders (ATS) scale was developed by Hogue (1993) to assess attitudes toward sexual offenders specifically. In a British study, Hogue administered the ATP and ATS scales to five groups, including police

officers, prison officers not involved in treatment efforts, prison officers involved in treatment efforts, probation officers/ psychologists, and sexual offenders. The results were as expected and showed the same pattern for both the ATP and ATS scales. Police officers held the most negative attitudes, followed by prison officers not involved in treatment efforts, then prison officers involved in treatment efforts, and probation officers/ psychologists. Sexual offenders had the most positive attitude toward sexual offenders.

Higgins and Ireland (2009) broadened Hogue's study to include perceptions of male and female sexual offenders in Northern Ireland. The ATP and ATS scales were administered, along with a vignette to forensic staff, prison officers, and members of the public. The results showed forensic staff held the most positive attitudes toward sexual offenders and prison officers held the most negative attitudes. Female respondents held more positive attitudes than male respondents. No significant differences were found between attitudes toward adult versus child offenders or male versus female offenders.

A third study of perceptions of sexual offenders, conducted by Weekes, Pelletier, and Beaudette (1995), examined correctional officer's perceptions of sexual offenders. The researchers surveyed correctional officers regarding sexual offenders against children, sexual offenders against women, and non-sexual offenders. Sexual offenders against children were rated as the most immoral and mentally ill of the three groups. Overall sexual offenders were seen as more dangerous, unpredictable, unchangeable, weak, and afraid than non-sexual offenders. The significance of these three studies examining perceptions of sexual offenders is related to institutional adjustment because the negative attitudes of prison staff may impact the institutional adjustment of sexual offenders. As sexual offenders enter prison they are faced with a harsh and hostile environment that is inherently difficult to navigate. The problem is compounded by the

fact prison staff may treat sexual offenders worse than other inmates, based on their negative attitudes toward the sexual offender's crime. The sexual offender may feel more unsafe and less capable of taking care of themselves if they do not feel they have the support of staff.

Young, Justice, and Edberg (2010) conducted a study of incarcerated sexual offenders in psychiatric treatment to examine a multitude of factors, including psychological dysfunction, performance on neuropsychological measures, and performance on sociological/ demographic measures. It should be noted the authors did not report the length of time the participants had been imprisoned, but it was implied they were not recently incarcerated. A second noteworthy point is the sexual offenders in the study were all under consideration for civil commitment under Sexually Violent Predator (SVP) laws. A high incidence of psychopathy (28%) was present in the study sample and all study participants were admitted to the prison psychiatric facility; 27% for psychological symptoms, 62% for threats of self-harm, and 11% for vulnerability concerns. The information gleaned from this study cannot necessarily be generalized to other incarcerated sexual offenders or newly incarcerated inmates. The authors found sexual offenders in their sample were younger and more likely to be unmarried. Interestingly, the sexual offenders did not differ significantly from non- sexual offenders in their self-report of social support or distress. Contrary to their hypothesis, only 27% of the study sample reported experiencing mental health symptoms.

A small body of research has found a much higher prevalence rate of mental illness among sexual offenders than other offenders. In one study 93% of the sample of sexual offenders met criteria for an Axis I disorder, not including a Paraphilia. Depression and psychosis were most common in the sample (Raymond, Coleman, Ohlerking, Christenson, & Miner, 1999). In a second study, Kafka and Hennen (2002) found a 72% occurrence of mood disorders, 38%

incidence of anxiety disorders, and a 36% occurrence of ADHD among their sample of outpatient sexual offenders. In regard to emotional characteristics of sexual offenders, one study found sexual offenders have lower self-perception, increased loneliness, increased distress, decreased empathy, and disordered attachment (Fisher, Beech, & Browne, 1999). Gacono, Meloy, and Bridges (2000) found their sample of sexual offenders were less interested in interpersonal relationships and demonstrated marked emotional dependency when compared to their sample of violent non- sexual offenders.

Ineffective coping has been noted as a major component of sexual offending behavior (Finkelhor, 1984; Marshall & Barbaree, 1990; Hall & Hirschman, 1991; Ward & Siegert, 2002). The inability to cope effectively likely extends to adjustment to prison because of the inherent stress in the institutional environment. Three general coping styles have been identified in the literature, including task-oriented coping, avoidance coping, and emotion-oriented coping. Task oriented coping involves confronting a problem head on or reframing it to make it more manageable and has been associated with better adjustment (Endler & Parker, 1999). A second style is avoidance coping, which involves distraction from the problem and can be considered functional in some scenarios (Holahan, Moos, & Schaefer, 1996). The third style is emotion-oriented coping which involves only managing the emotions related to the problem (e.g. wishful thinking and blaming) and is consistently associated with poor health and psychological maladjustment (Holahan et al., 1996). A number of studies have indicated sexual offenders are more likely to implement avoidance coping and emotion-oriented coping than other types of offenders and non-offenders (Cortoni, 1998; Cortoni, Anderson, & Looman, 1999; Marshall, Cripps, Anderson, & Cortoni, 1999; Marshall & Fernandez, 2000, Marshall, Serran, & Cortoni, 2000).

When taken together, the data suggests male sexual offenders have a set of unique characteristics that are likely to predispose them to adjustment problems related to incarceration. The higher prevalence of mental illness alone can adversely impact adjustment, but when coupled with the social dynamics of the prison environment the incarcerated sexual offender is likely to experience more problems than the average offender.

Female Sexual Offenders and Institutional Adjustment

Traditionally, sexually aggressive behavior has been linked only to males and therefore research on female sexual aggressors has been extremely limited (Anderson & Aymami, 1993; Anderson & Melson, 2002; Anderson & Sorenson, 1999; Higgs, Canavan, & Meyer, 1992). The idea of a female sexual offender is offensive to society and it has been difficult to accept the presence of female sexual offenders. As more research is conducted and publicized, the rate of females being incarcerated for sexual offenses is likely to rise. When female sexual offenders enter prison, they may present unique challenges to prison administrators, much like their male counterparts.

Relatively little research has been conducted since the 1980's to characterize the illusive female sexual offender and determine the prevalence of sexual perpetration by females. Miccio-Fonseca (2000) reported 1.65% of the female prison population in the United States was incarcerated for a sexual offense. Interestingly, however, a study of victims of sexual assault, Kaplan and Green (1995) found 4-24% of victims of sexual assault reported a female perpetrator. Cortoni (2009) reported approximately 5% of all sexual offenders are female. It is important to note, the figures reported here are likely underestimates of the actual prevalence of sexual assault by females because most sexual assault goes unreported (Finkelhor & Russell, 1984).

Attempts have been made to characterize female sexual offenders. Grayson and DeLuca (1999) conducted a literature review and concluded most female sexual offenders are in their 20s and 30s, Caucasian, likely to be poorly educated, of lower socioeconomic status, and unemployed. Wijkman, Bijleveld, and Hendriks' (2010) study of 111 female sexual offenders in the Netherlands revealed similar offender characteristics. Approximately one third of the sample was married at the time of the offense and two thirds of the sample had one or more children. Based on the results of these studies, it does not appear female sexual offenders are much different from the female prison population in general, however it is still important to characterize this group in order to anticipate adjustment problems they may encounter.

Researchers have shown female sexual offenders appear to have even more mental health problems than the average female inmate. A number of studies have found evidence that most of the female sexual offenders they sampled carried a mental health diagnosis. O'Connor (1987) calculated 48% of his sample had a mental health diagnosis and a history of psychiatric treatment. Similarly, Kaplan and Green (1995) reported the majority of their sample had a severe mental health diagnosis including Major Depression, PTSD, substance abuse, and personality disorders (most often Avoidant and Dependent Personality Disorders). Overall the female sexual offenders demonstrated more psychiatric impairment than the control group. Travin, Cullen, and Protter (1990) noted the presence of Borderline Personality Disorder, severe Bipolar Disorder, Paranoid Schizophrenia, and Schizoaffective Disorder in their sample of five female sexual offenders. Mayer (1983) also found a high prevalence of Borderline Personality Disorder among female sexual offenders. Faller (1987) examined a sample of 40 female sexual offenders and found 32% of the sample was mentally retarded or brain damaged and 17% experienced some form of psychosis. Faller suggested the mental disorders found in her sample may have impacted

the offender's judgment and behavior in regard to the sexual offenses they perpetrated. In a later study by Faller (1995), three of her 72 study participants had a mental illness that directly precipitated the sexual abuse, including women with delusional beliefs that instigated the abuse.

Lewis and Stanley (2000) reviewed the charts of 15 female sexual offenders at a psychiatric hospital who had been referred for a competency/ criminal responsibility evaluation. They reported 33% of the sample was depressed and 20% were psychotic. Although they did not find Posttraumatic Stress Disorder diagnoses, 80% of the sample reported past abuse. Miccio-Fonseca (2000) studied a group of 18 female sexual offenders and found 44% had attempted suicide in their life. Overall researchers are suggesting a relationship between female sexual abuse perpetrators and mental illness, but do not deny the presence of environmental factors as mediating variables in the relationship (Becker, Hall, & Stinson, 2001).

Researchers have suggested a majority of female sexual offenders were victimized themselves. Kaplan and Green (1995) found nine of their 11 participants were sexually abused as children and the abuse was more severe and associated with PTSD than the control group. Additionally eight of the eleven participants were physically abused as children. Two of the 11 participants reported being the victim of sexual abuse while incarcerated. Each of the participants in Travin et al. endorsed a history of physical, emotional, and sexual abuse. Travin et al. also documented low self-esteem and few or no positive social relationships. In a review of the literature, Wijkman, Bijleveld, and Hendriks (2010) reported female sexual offenders across studies appeared to have been raised in highly dysfunctional and abusive homes. The high rate of trauma and PTSD symptoms is likely to negatively impact the institutional adjustment of female sexual offenders.

Substance abuse was also found to be prominent among female sexual offenders. Faller's 1987 and 1995 studies of 40 and 72 female sexual offenders, respectively revealed 50% of each sample abused substances. Faller (1995) suggested female sexual offenders may have poor coping as indicated by their level of substance abuse. Additionally, Faller stated the offenders in her sample are likely to have problems in other areas of functioning, besides sexual offending.

According to Vandiver and Walker's (2002) study of female sexual offenders in Arkansas examined characteristics of the group. Notably, they found 73% of their sample had never been arrested prior to being caught for their sexual offense. This finding can be generalized to assume many female sexual offenders are entering prison for the first time, which will further impact their institutional adjustment. In summary, it appears female sexual offenders have higher incidences of mental illness, poorer coping, and less experience in prison than the average female offender. These characteristics appear to be unique to the group and are likely to negatively impact institutional adjustment.

A study by Miccio-Fonseca (2000) compared female sexual offenders with female nonsexual offenders and male sexual offenders on aspects of their personal history. The female sexual offenders and male sexual offenders did not differ statistically on the degree of psychiatric problems in the family or their self—reported reasons to attend therapy, such as depression, anxiety, relationship difficulty, or sexual abuse. Female sexual offenders did have a higher prevalence of suicide attempts in comparison to male sexual offenders (44% vs. 15%, respectively). Also, 50% of the female sexual offenders had a family member commit suicide, compared to 8% of male sexual offenders. The female sexual offenders were similar to the female nonsexual offenders across most of the psychological variables, however they differed in regard to suicide. History of suicide in the family was similar across both groups, but they were

statistically different in their own number of suicide attempts (12% of female nonsexual offenders vs. 44% of female sexual offenders). The female sexual offender group reported a higher incidence of having a family member who physically hurt or killed someone, than the female nonsexual offender group (56% vs. 27%, respectively). The male and female sexual offender groups were similar in regard to life stressors; however, male offenders had more legal problems. Female sexual and nonsexual offenders differed in respect to type of life stressor. Female sexual offenders reported higher stress related to trouble with the law in general, trouble with the law due to sexual habit, hospitalization, relationship difficulty, and difficulty in school.

To date, there is no research on the institutional adjustment of female sexual offenders specifically. The scant research on male sexual offender prison adjustment can be cautiously applied to female offenders because of the commonalities between male and female sexual offenders, including poor coping skills and relationship difficulties (Allen, 1991; Denov & Cortoni, 2006; Grayston & DeLuca, 1999; Kubik, Hecker, & Righthand, 2002; Matthews, Hunter, & Vuz, 1997; Matthews, Matthews, & Speltz, 1989; Nathan & Ward, 2001, 2001). There are clear differences between male and female sexual offenders that may differentially impact institutional adjustment; particularly the higher incidence and severity of abuse experienced by females, the higher prevalence of mental illness among females, and prevalence of suicide attempts (CSOM, 2007; Miccio-Fonseca, 2000).

The Current Study

As can be seen from the literature review adjustment to prison is an important topic for research and institutional management, particularly for groups of inmates with unique needs. Inmates undergo an adjustment period at the beginning of their incarceration in which they acclimate to the prison environment. The manner in which inmates adjust is determined by characteristics of the inmate and environmental factors and therefore the adjustment experience varies by inmate. Male and female sexual offenders require special attention when they enter prison, due to their susceptibility to adjustment problems. The majority of research that has been conducted on institutional adjustment has been with male inmates and we now know the results cannot be simply generalized to other populations. It is of great interest to institutions to effectively manage inmates to reduce levels of violence and victimization and identify inmates at risk of perpetrating and/ or becoming victimized. From a resources standpoint, identification of vulnerable inmates and proactive, early intervention may decrease problems in the long term.

This study will add to the literature by comparing the level of adjustment of sexual offenders to nonsexual offenders in their first six months of incarceration using the Distress and Conflict scales of the Prison Adjustment Questionnaire (PAQ) and the Victimization scale of the Prison Violence Inventory (PVI). As discussed in the literature review, a large component of adjustment is coping with the stress and fear of imprisonment and this concept is captured by scores on the Distress Scale of the PAQ. The Conflict Scale of the PAQ is being utilized because conflict and acting out behavior can be conceptualized as a reaction to stress and an indicator of maladjustment. The Victimization Scale of the PVI is being used to capture the extent the participant is being victimized, with the understanding that higher levels of victimization increase stress, which in turn contributes to maladjustment. Both the sexual offender sample and

nonsexual offender sample consist of both males and females. The decision was made to combine males and females due to limitations in sample size. It is hypothesized that sexual offenders will have poorer adjustment than nonsexual offenders during the first six months of incarceration. More specifically they will be the victims of violence more often, will be in conflict more often, and will experience greater distress than nonsexual offenders. Additionally, it is hypothesized scale scores will decrease for both groups from baseline to the six month follow-up.

METHOD

Participants

Between January 2009 and December 2011, study participants were recruited from Coffee Creek Correctional Facility (CCCF). The male study participants were members of a larger sample of 160 males who volunteered to participate in the Personality and Adjustment to Prison (PAP) study during their first year of incarceration. Similarly, the female study participants were also members of a larger sample of 147 female volunteers who agreed to participate in the Women's Adjustment to Prison (WAP) study. All study participants were serving their first incarceration, were 18-years-old, English-speaking, were psychiatrically and behaviorally stable enough to complete the paperwork and interview, and had prison sentences of 18 months or longer. Participation was also limited to participants who completed the Personality Assessment Inventory (PAI), a standard instrument administered to all inmates entering the Oregon Department of Correction who scored above a fourth grade reading level on the intake reading exam. Inmates with elevations on the validity scales of the PAI were disqualified. Inmates were disqualified from the study if their PAI was invalid or if they had been incarcerated previously. Participants were assigned to one of two groups (i.e., sexual offender or non-sexual offender) based on their index offense.

Due to attrition, many participants dropped out of the study between baseline and the six month follow-up. The number of sexual offenders, both male and female at baseline ($n = 40$) dropped substantially by the six month follow-up ($n = 15$ drop outs, 62.5% drop out rate). All of the sexual offenders who dropped out of the study prior to follow-up were male. The number of nonsexual offenders also decreased from baseline ($n = 242$) to follow-up ($n = 85$ drop outs, 35.12% drop out rate). Of the nonsexual offenders who dropped out of the study prior to follow

up, 19 were female (22.4%) and 66 were male (77.6%). The number of participants who dropped out was substantial enough to potentially change the demographic makeup of the sample. The mean age, sentence length, and education values are presented in Table 1 and broken down by baseline and six months. Independent samples t-tests were conducted to determine if the mean age, sentence length, or education level changed significantly within the groups from baseline to six months.

The average age of the sexual offender group at baseline was 33.85 years ($n = 40$, $SD = 14.51$, range = 52), the average sentence length was 96.57 months ($SD = 91.28$, range = 468), and the average education level was 11.39 years ($SD = 1.54$, range = 6). The average age of the sexual offender group at the six month follow-up was 31.07 years ($n = 15$, $SD = 12.13$, range = 40), the average sentence length was 100.29 months ($SD = 119.33$, range = 468), and the average education level was 11.14 years ($SD = 1.79$, range = 6). Independent samples t-tests were performed to determine if there was a significant change in the age, sentence length, or education level of the sexual offender group from baseline to the six month follow-up. An alpha level of .05 was used as the criterion for statistical significance.

In regard to age, the baseline sexual offender group did not significantly differ from the six month follow-up sexual offender group ($t(53) = .66$, $p = 0.51$). The baseline sexual offender group did not significantly differ from the six month follow-up sexual offender group on sentence length ($t(47) = -0.12$, $p = 0.91$). The baseline sexual offender group did not significantly differ from the six month follow-up sexual offender group on education level ($t(43) = 0.47$, $p = 0.64$). The overall results of the t-tests indicate there were no significant demographic differences between the sexual offender group at baseline and at the six month follow-up. These results are summarized in Table 1.

The mean age of the nonsexual offender group at baseline was 32.73 years ($n = 242$, $SD = 10.68$, range = 59), the average sentence length was 42.30 months ($SD = 49.32$, range = 354), and the average education level was 11.17 years ($SD = 1.95$, range = 12). The mean age of the nonsexual offender group at the six month follow-up was 34.43 years ($n = 157$, $SD = 11.22$, range = 58), the average sentence length was 34.34 months ($SD = 33.11$, range = 234), and the average education level was 11.36 years ($SD = 1.98$, range = 12). Independent samples t-tests were performed to determine if there was a significant change in the age, sentence length, or education level of the nonsexual offender from baseline to the six month follow-up. An alpha level of .05 was used as the criterion for statistical significance.

In regard to age, the baseline nonsexual offender group did not significantly differ from the six month follow-up nonsexual offender group ($t(397) = -1.53$, $p = 0.13$). The baseline nonsexual offender group did not significantly differ from the six month follow-up nonsexual offender group in terms of sentence length ($t(325) = 1.63$, $p = 0.10$). In regard to education level, the baseline nonsexual offender group did not significantly differ from the six month follow-up nonsexual offender group ($t(321) = -0.84$, $p = 0.40$). The overall results of the t-tests indicate there were no significant demographic differences between the nonsexual offender group at baseline and the nonsexual offender group at the six month follow-up. These results are summarized in Table 1.

Table 1

Descriptive Statistics for the Sexual Offender (SO) and Nonsexual Offender (NSO) Groups at Baseline and Six Month Follow-up

	SO Baseline	NSO Baseline	SO Six Month Follow-Up	NSO Six Month Follow-Up
	<i>n</i> = 40	<i>n</i> = 242	<i>n</i> = 15	<i>n</i> = 157
	Mean (SD)			
	Range			
Age	33.85 (14.51)	32.73 (10.68)	31.07 (12.13)	34.43 (11.22)
(years)	52	59	40	58
Sentence Length	96.57 (91.28)	42.30 (49.32)	100.29 (119.33)	34.34 (33.11)
(months)	468	354	468	234
Education	11.39 (1.54)	11.17 (1.95)	11.14 (1.79)	11.37 (1.98)
(years)	6	12	6	12

The racial breakdown of the sexual offender and nonsexual offender groups is comparable from baseline to six months. No further analyses were completed on this data. The raw data is presented in Table 2.

Table 2

Ethnic Composition of the Sexual Offender (SO) and Nonsexual Offender (NSO) Groups at Baseline and Six Month Follow-up

	SO Baseline	NSO Baseline	SO Six Month Follow-Up	NSO Six Month Follow-Up
	<i>n</i> = 40	<i>n</i> = 242	<i>n</i> = 15	<i>n</i> = 157
Race/Ethnicity	(%)			
White/Caucasian	72.50	79.34	73.33	83.44
Black/African Am	7.50	6.20	6.67	3.82
Hispanic/Latina	7.50	6.61	6.67	5.73
Asian Am/Pac Is	2.50	2.48	0	3.18
Am Indian/Alaska	2.50	2.90	0	1.91
Bi/Multiracial	7.50	2.48	4.88	1.91

Note. Black/African Am = Black/African American; Asian/Pac Is = Asian/Pacific Islander; Am Indian/Alaska = American Indian/Alaskan Native; Bi/Multiracial = Biracial/Multiracial

The abuse and trauma histories of the participants were documented using the Initial Trauma Review – Revised (ITR-R; Briere, 2004). The results are summarized in Table 3 below. No further analyses were completed on this data.

Table 3

Abuse Statistics for the Sexual (SO) and Nonsexual Offender (NSO) Participants Broken Down by Gender

	Female SO	Female NSO	Male SO	Male NSO
	<i>n</i> = 5	<i>n</i> = 138	<i>n</i> = 35	<i>n</i> = 104
	(%)			
Childhood Physical Abuse	60	45.7	32.35	40.95
Childhood Sexual Abuse	60	47.83	38.24	25.71
Childhood Witness to Trauma	40	34.1	64.71	51.43
Adult Physical Abuse or Assault	60	75.36	50	74.29
Adult Sexual Abuse	40	30.43	2.94	2.86
Adult Witness to Trauma	40	45.65	50	55.24

As mentioned above, a large number of sexual offender and nonsexual offender participants chose not to participate in the six month follow-up. A series of independent samples t-tests were conducted to determine if significant demographic differences existed between the participants who chose to complete the six month follow-up measures and those who did not. Independent samples t-tests were also conducted to determine if significant differences existed between the PAQ Conflict and Distress scale scores and PVI Victimization scale scores between the participants who chose to complete the six month follow-up measures and those who did not. The results are presented in Tables 4 and 5.

The results of the t-tests indicated no significant differences between sexual offenders who participated in follow-up and those who dropped out in regard to age, sentence length, and level of education (results are presented in Table 4). Among nonsexual offenders significant demographic differences were detected in each domain. Nonsexual offenders who dropped out before follow-up were significantly younger ($t(240) = 1.97, p = 0.001$), had significantly longer sentences ($t(190) = 1.97, p < .001$), and significantly less education ($t(186) = 1.97, p = 0.03$) than those who completed the follow-up.

Table 4

Descriptive Statistics for the Sexual Offender (SO) and Nonsexual Offender (NSO) Participants who Completed the Six Month Follow-up Measures and those Who Dropped Out

	SO Completed <i>n</i> = 15	SO Drop-outs <i>n</i> = 25	NSO Completed <i>n</i> = 157	NSO Drop-outs <i>n</i> = 85
	Mean (SD)			
	Range			
Age (years)	31.07 (12.13) 40	35.52 (15.77) 50	34.43 (11.22) 58	**29.58 (8.84) 38
Sentence Length (months)	100.29 (119.33) 468	94.1 (69.95) 236	34.34 (33.11) 234	**61.16 (71.83) 354
Education (years)	11.14 (1.79) 6	11.59 (1.33) 5	11.37 (1.98) 12	*10.69 (1.78) 9

**p* < .05

** *p* < .01

The results of the t-tests indicated no significant differences between sexual offenders who participated in follow-up and those who dropped out in regard to scale scores on the PAQ and PVI (results are presented in Table 5). Among nonsexual offenders, significant scale score differences were detected on the PAQ Distress scale. Nonsexual offenders who completed the follow-up scored significantly higher on the PAQ Distress scale than those who dropped out (*t* (240) = 1.97, *p* = 0.003).

Table 5

Baseline Mean Scale Scores for the Sexual Offender (SO) and Nonsexual Offender (NSO) Participants who Completed the Six Month Follow-up Measures and those Who Dropped Out

	SO Completed <i>n</i> = 15	SO Drop-outs <i>n</i> = 25	NSO Completed <i>n</i> = 157	NSO Drop-outs <i>n</i> = 85
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	Mean (SD)			
	Range			
PAQ Conflict Scale	7.07 (2.09)	7.24 (2.17)	7.03 (2.04)	7.06 (2.19)
	8	10	11	10
PAQ Distress Scale	16.4 (4.37)	15.92 (4.13)	15.03 (3.64)	**13.58 (3.53)
	16	19	16	16
PVI Victimization Scale	1.67 (1.84)	2.48 (3.68)	1.67 (2.55)	1.67 (3.24)
	5	15	16	17

* $p < .05$

** $p < .01$

Although limitations in sample size did not allow for specific comparison of male and female participants, the raw data are presented below. No further analyses were conducted.

Table 6

Scale Scores for the Sexual Offender (SO) Participants Broken Down by Gender

	Female SO Baseline	Female SO Follow-up	Male SO Baseline	Male SO Follow- up
	$n = 5$	$n = 5$	$n = 35$	$n = 10$
	Mean (SD)			
	Range			
PAQ Conflict Scale	5.80 (0.45)	10 (4.47)	7.37 (2.18)	7.90 (2.28)
	9	11	10	7
PAQ Distress Scale	16.40(5.37)	17.60 (6.99)	16.06 (4.07)	15.70 (5.42)
	14	18	19	17
PVI Victimization Scale	2 (2)	6.20 (3.27)	2.20 (3.26)	4.10 (3.93)
	4	8	15	11

Table 7

Scale Scores for the Nonsexual Offender (NSO) Participants Broken Down by Gender

	Female NSO Baseline	Female NSO Follow-up	Male NSO Baseline	Male NSO Follow-up
	$n = 138$	$n = 118$	$n = 104$	$n = 39$
	Mean (SD)			
	Range			

PAQ Conflict Scale	6.91 (2.04) 11	8.14 (2.13) 9	7.21 (2.15) 10	9 (2.84) 11
PAQ Distress Scale	15.07 (3.70) 16	14.96 (3.93) 16	13.79 (3.50) 17	14.23 (4.37) 22
PVI Victimization Scale	1.53 (2.27) 16	2.77 (2.91) 10	1.86 (3.39) 17	1.82 (1.92) 6

Measures

This study is part of a larger study on personality and adjustment to prison. The measures listed below are those relevant to this sub-study only and not an exhaustive list. Demographic information (e.g., age, ethnicity, etc.) was collected for each participant both from the Department of Corrections database and a chart review. In regard to measuring adjustment, the Prison Adaptation Questionnaire (PAQ) and the Prison Violence Inventory (PVI) were administered to gain information about the participant's adjustment over six months. For more information on the psychometric properties of the PAQ and PVI please see the *Literature Review, Institutional Adjustment* section (pp. 13-15).

Prison Adjustment Questionnaire (PAQ; Wright, 1985, 1986). The Prison Adjustment Questionnaire is a 30-item self-report measure of self-perceptions of adjustment. The measure compares the participant's prison experience to their experience in the community and also examined perceptions on general well-being (i.e., getting enough to eat, sleep, etc.). Respondents select an answer to each question based on the frequency the item occurs (i.e., *How often do you argue with guards? (a) most of the time, (b) at least once a day, (c) occasionally, (d) seldom, (e) never*). The PAQ yields four scales including the Distress, Conflict, Comparison, and Institutional Satisfaction scales. The Institutional Satisfaction Scale items are more descriptive in nature and ask inmates to rate the frequency of an activity. The Comparison Scale items ask inmates to compare their prison experience to their life experience prior to incarceration. The Distress Scale items ask questions related to discomfort, sickness, trouble

sleeping, fear, and incidence of being taken advantage of by other inmates. The Conflict Scale items are related to anger, aggression, and injury. The Distress and Conflict Scales only will be used in this study.

Prison Violence Inventory (PVI; Warren, 2008). The Prison Violence Inventory is a 34-item self-report inventory of perpetration of violence and violence perpetrated against the participant. Items on the PVI are answered “yes” or “no.” The items cover a variety of violent acts, threats, and bullying behavior and ask if the participant has ever perpetrated the act or had the act done to them (e.g., “*has anyone threatened to hit, threatened to throw something at you, or threatened to do any other type of harm to you?*” and “*have you ever threatened to hit, threatened to throw something, or threatened to do any other type of harm to someone?*”). The PVI yields two scale scores of Perpetrated Violence (VIO) and Victimization (VIC). The Victimization Scale only will be used in this study. Although there are no published norms or reliability information for this measure, Warren (2008) indicated self-reported violence on the PVI and officially recorded misconduct from records were correlated (violent institutional misconduct ($r = .35, p < .001$), societal rule violations ($r = .25, p < .001$), and institutional rule violations ($r = .32, p < .32$)).

Procedure

Both Institutional Review Board (IRB) and Oregon Department of Corrections reviewed and approved the study prior to data collection. Data was first collected from female participants followed by data collection with male inmates. Inmates were recruited if they were English-speaking, had completed a valid PAI, had a sentence length of 18 months or greater, and were serving their first incarceration. The overarching goal was to recruit a total of 150 female inmates

and 150 male inmates. Research assistants underwent a Hare Psychopathy Checklist – Revised (PCL-R) training, including interrater reliability assessment on eight cases.

Baseline 1: Research assistants were provided a list of newly admitted inmates by prison administrators. From the list, inmates were selected if they were serving their first prison sentence, had a valid PAI, were English-speaking, and met the requirement for sentence length. Research assistants gathered 5-7 inmates and invited them to participate in a study examining the relationship between personality and adjustment to prison of first-time inmates. Volunteers were given an overview of the study and informed of participation requirements including meeting with a research assistant two times, filling out questionnaires, and being interviewed about their life. Participants were also informed that they would be required to complete research measures over the course of their first year, at three, six, nine, and twelve months. The informed consent was reviewed and research assistants offered the participants an opportunity to ask questions. Informed consent was obtained by asking the participant to sign the Informed Consent form and answer the five quiz items in the Informed Consent. Participants were required to answer four of the five questions correctly. In the study of female inmates, they were offered \$10.00 in exchange for their cooperation in completing measures for the full year. The males were not offered a research incentive. Consenting participants were then administered a variety of questionnaires. Baseline one measures were expected to be completed within one hour. Research assistants then conduct a medical and legal file review following Baseline one.

Baseline 2: The time between Baseline one and Baseline two ranged from the same day to one week later. Research assistants met with each participant individually and administered the Hare Psychopathy Checklist – Revised (PCL-R). Additionally participants completed the Prison Adjustment Questionnaire (PAQ), Personality and Adjustment to Prison Questionnaire

(PAP), and the Prison Violence Inventory (PVI). Baseline two required 80-120 minutes depending on the length of the PCL-R interview. At the completion of the Baseline two measures, participants were reminded of the follow-up procedures.

Follow-up: During the follow-up period participants received the Prison Adjustment Questionnaire (PAQ), Personality and Adjustment to Prison Questionnaire (PAP), and the Prison Violence Inventory (PVI) via institutional mail. Questionnaires were mailed to participants at three, six, nine, and twelve months after baseline two was completed. Participants were expected to complete the questionnaires within 10-20 minutes and return the measures to researchers in a pre-addressed envelope that was included.

Statistical Analyses

This study is a comparison of the level of adjustment between sexual offenders and nonsexual offenders in their first six months of incarceration as measured by the Prison Adjustment Questionnaire (PAQ) and the Prison Violence Inventory (PVI). It was hypothesized that sexual offenders would have poorer adjustment than nonsexual offenders during the first six months of incarceration. More specifically they would be in conflict more often, would experience greater distress, and would be the victims of violence more often than nonsexual offenders. The first hypothesis is sexual offenders would be in conflict significantly more often than nonsexual offenders and would therefore score higher on the Prison Adjustment Questionnaire Conflict (PAQ Conflict) Scale than nonsexual offenders at baseline and six months. The second hypothesis was sexual offenders would experience significantly greater distress than nonsexual offenders and would therefore score higher on the Prison Adjustment Questionnaire Distress (PAQ Distress) Scale than nonsexual offenders at baseline and six

months. The third hypothesis was sexual offenders would be victimized significantly more often than nonsexual offenders and would therefore score higher on the Prison Violence Inventory Victimization (PVI Victimization) Scale than nonsexual offenders at baseline and six months. Additionally, it was hypothesized all scale scores would significantly decrease for both groups from baseline to the six month follow-up as inmates begin to adjust to the prison environment. Male and female sexual offenders and male and female nonsexual offenders were grouped together in an effort to increase the sample size to a level where statistical analyses could be performed.

All statistical analyses were conducted using the Microsoft Excel XLSTAT data package or IBM Statistical Package for the Social Sciences (SPSS). A series of independent samples t-tests were used to determine if significant differences exist between the mean age, sentence length, and education levels of the sexual offender and nonsexual offender groups at baseline and six months (see Table 1). Independent samples t-tests were also conducted to determine if significant differences exist between participants who completed the follow-up and those who dropped out (see Tables 3 and 4).

Due to limitations in the data, including a non-normal distribution and largely discrepant sample sizes among the sexual offender and nonsexual offender groups, nonparametric tests were considered (see *Results* section for a more detailed discussion). The use of median values in nonparametric testing, rather than mean values is a more robust way to account for these limitations in the data as nonparametric tests do not assume the data is normally distributed.

The Wilcoxon signed-rank test is the nonparametric equivalent of a repeated-measures t-test. This test is used to compare the performance of a single independent variable (i.e., baseline or follow-up) across three measures (i.e., scale score on the PAQ or PVI). A series of Wilcoxon

tests were conducted to compare the within group differences between sexual offenders at baseline and follow-up and nonsexual offenders at baseline and follow-up on the Conflict and Distress scales of the PAQ and Victimization scale of the PVI.

The Wilcoxon test requires three assumptions be met. The first is each participant in the sample must be randomly selected from the larger population and each pair of observations (i.e., baseline and six month follow-up) must be independent of the other pairs of observations. This assumption was fulfilled, as participants were randomly selected from a larger population of inmates when the data was collected. The second assumption requires a large sample size and suggests at least 16 paired observations. The current sexual offender data sample included 15 paired observations. Although this falls slightly below the suggested number of observations, the Wilcoxon test will be conducted and this will be discussed in the *Limitations* section. The third assumption of the Wilcoxon test is the distribution of difference scores is continuous and symmetrical in the larger population. As discussed in detail in the *Literature Review*, there are a variety of individual and environmental variables that influence the adjustment process. Some individuals adjust easily, with minimal stress and others have a more difficult experience. Due to the random selection of study participants it was assumed the study sample would include individuals across the spectrum.

Next, a series of Mann-Whitney U tests were conducted to compare the between groups differences of sexual offenders and nonsexual offenders at baseline and again at follow-up on the Conflict and Distress scales of the PAQ and Victimization scale of the PVI. The Mann-Whitney U test is a nonparametric equivalent of a one-way analysis of variance test (ANOVA). It is used to compare the median values of one categorical, independent variable (i.e., sexual offender status) on an ordinal, dependent variable (i.e., scale score on the PAQ or PVI).

The Mann-Whitney U test follows three underlying assumptions. The first assumption dictates the distribution of the test variable is the same for both populations. Both the sexual offender and nonsexual offender group were randomly selected from the same larger population. Also, according to t-tests conducted on age, sentence length, and educational level, the two populations did not differ significantly. Therefore, it was assumed the distribution of the test variable was the same for both populations. The second assumption is participants are randomly selected from two larger populations (i.e., sexual offenders and nonsexual offenders) and scores on the test variables are independent of each other. As mentioned, all participants were randomly selected and their scores on the test variables were unrelated. The third assumption of the Mann-Whitney U test is a large sample size of at least 42 cases is required for the z-approximation test. Although the sexual offender samples at baseline ($n = 40$) and follow up ($n = 15$) do not meet this assumption, the results of the test will be carefully interpreted and this violation will be discussed in detail in the *Limitations* section.

RESULTS

Pre-Analysis Data Screening

This study examined two categorical, independent variable (sexual offender status and time) and three dependent variables (PAQ Conflict, PAQ Distress, and PVI Victimization scores). Data was subject to preliminary analyses to examine the data and describe the variables and their relatedness. The accuracy of the data was examined by calculating frequency distributions and descriptive statistics for quantitative variables (i.e., the scale scores of the PAQ and PVI) and ensuring the values fell within the possible range of scores. The index crimes of each participant were coded as sexual in nature or not sexual in nature and each was assigned to the sexual or nonsexual offender group accordingly.

Analyses were conducted to identify outliers in the data. Participants who only participated in baseline measures and had two scale scores greater than or equal to two standard deviations from the mean were deleted ($n = 4$ total cases; three of which were nonsexual offenders and one was a sexual offender; one of which was a female and three were male). Participants who participated in both baseline and follow-up and had three or more scale scores greater than or equal to two standard deviations from the mean were deleted ($n = 5$ nonsexual offenders; three of which were female and two were male). Of the nine deleted cases, five included one scale score that was three standard deviations or more from the mean. Considering the relatively small sample sizes of the groups, the data would be sensitive to the presence of outliers. Outliers were deleted in order to normalize the data. Only individuals with two or more scale scores that fell above two standard deviations were removed. In addition, two standard deviations from the mean is inclusive of 95.4% of the sample and participants falling outside this range on more than one variable may represent a unique group of individuals who are not representative of the target population of this study. This will be discussed in more detail in the *Discussion* section.

The remainder of the missing data was deemed random and admissible. It is important to note there was a large amount of missing demographic data which made it difficult to accurately characterize each sample. For a more detailed discussion of this matter see the *Limitations* section.

The assumptions of univariate statistical testing (normality, linearity, and homogeneity of variance) were assessed for the DVs prior to further analysis. Univariate normality was assessed through skewness and kurtosis coefficients. Skewness values fell outside the range of -1 and +1, representing a positively skewed distribution on the Conflict scale of the PAQ at baseline

for sexual offenders (*skewness* = 1.78) and nonsexual offenders (*skewness* = 1.50). This finding indicates the sample is skewed in the positive direction, which was anticipated considering the sample is comprised of first-time inmates who are expected to experience a difficult initial adjustment period. The skewness values on the PVI Victimization scale at baseline were also outside the -1 to 1 range for sexual offenders (*skewness* = 2.14) and nonsexual offenders (*skewness* = 2.61), representing a negatively skewed distribution. This finding was also expected as new and possibly naïve inmates are likely to be victimized more frequently overall. By the six month follow-up all of the skewness values fell within the acceptable range, indicating a more normal distribution of scores.

A number of kurtosis values fell outside the -1 to +1 range at baseline on the Conflict scale of the PAQ for sexual offenders (*kurtosis* = 3.87) and nonsexual offenders (*kurtosis* = 2.31) and the PVI Victimization scale for sexual offenders (*kurtosis* = 5.50) and nonsexual offenders (*kurtosis* = 8.50). By the six month follow-up all kurtosis values approached or fell within the acceptable range. This finding indicates the scores at baseline were clustered together and elevated as would also be expected for first time inmates. By the six month follow-up the scores conformed to a more normal distribution. It is likely the highly specific sample of first-time inmates and small sample size contributed to the non-normality of the data.

The homogeneity of variance assumption for between group differences was tested using Levene's test at the .05 level of statistical significance. Results of Levene's test of equality of variance were not significant, indicating that the assumption of homogeneity of variance was met in all comparisons, except one. The variance of the sexual offender group differed significantly from the nonsexual offender group on the PAQ Distress scale at follow-up ($t(170) = 4.142, p = .04$). Due to the small sexual offender sample size, discrepant sample sizes between groups, and

violation of the normality assumption in one instance it was deemed nonparametric testing would be most appropriate. Use of the median, rather than the mean is one manner by which to compensate for the non-normality of the data sample.

Wilcoxon Signed-Rank Test

A series of Wilcoxon tests were conducted to determine if significant within group differences exist between sexual offenders' scale scores at baseline and at six month follow-up and between nonsexual offenders' scale scores at baseline and at six months. The categorical, independent variable was time (i.e., baseline or six months) and the three dependent variables were the PAQ Conflict, PAQ Distress, and PVI Victimization scores. An alpha level of .05 was used as a criterion for significance.

According to the results of the Wilcoxon test ($z = -1.50, p = 0.13$), PAQ Conflict scale scores did not significantly differ between baseline ($n = 40, \mu = 7.07, Mdn = 6, SD = 2.09$) and follow-up ($n = 15, \mu = 8.6, Mdn = 8, SD = 3.18$) among sexual offenders. The mean of the ranks in favor of higher scores at follow-up than baseline was 7.25 and the mean of the ranks in favor of higher scores at baseline was 5.00 ($r = -0.20$). The hypothesis that scale scores would decrease from baseline to follow-up was not supported, rather the scale scores unexpectedly increased, but not significantly so. PAQ Conflict scale scores did significantly differ ($z = -6.22, p < 0.001$) between baseline ($n = 242, \mu = 7.03, Mdn = 6, SD = 2.04$) and follow-up ($n = 157, \mu = 8.36, Mdn = 8, SD = 2.34$) among nonsexual offenders, but not in the expected direction. The mean of the ranks in favor of higher scores at follow-up than baseline was 63.76 and the mean of the ranks in favor of higher scores at baseline was 65.09 ($r = -0.31$). It was hypothesized scale scores would decrease from baseline to six months as adjustment took place, but this hypothesis was not supported.

According to the results of the Wilcoxon test ($z = -0.14, p = 0.90$), PAQ Distress scale scores did not significantly differ between baseline ($n = 40, \mu = 16.4, Mdn = 16, SD = 4.37$) and follow-up ($n = 15, \mu = 16.33, Mdn = 15, SD = 5.80$) among sexual offenders. The mean of the ranks in favor of higher scores at follow-up than baseline was 7.92 and the mean of the ranks in favor of higher scores at baseline was 6.21 ($r = -0.02$). PAQ Distress scale scores did not significantly differ ($z = -0.84, p = 0.40$) between baseline ($n = 242, \mu = 15.03, Mdn = 14, SD = 3.64$) and follow-up ($n = 157, \mu = 14.78, Mdn = 15, SD = 4.04$) among nonsexual offenders. The mean of the ranks in favor of higher scores at follow-up than baseline was 60.08 and the mean of the ranks in favor of higher scores at baseline was 75.38 ($r = -0.04$). It was hypothesized scale scores would decrease from baseline to six months as adjustment took place, and although the mean scale scores did decrease for both sexual and nonsexual offenders, the finding was not significant.

According to the results of the Wilcoxon test ($z = -2.72, p = 0.007$), PVI Victimization scale scores significantly differed between baseline ($n = 40, \mu = 1.67, Mdn = 1, SD = 1.84$) and follow-up ($n = 15, \mu = 4.8, Mdn = 5, SD = 3.75$) among sexual offenders, but not in the expected direction. The mean of the ranks in favor of higher scores at follow-up than baseline was 6.68 and the mean of the ranks in favor of higher scores at baseline was 4.50 ($r = -0.37$). PVI Victimization scale scores did significantly differ ($z = -3.83, p < 0.001$) between baseline ($n = 242, \mu = 1.70, Mdn = 0, SD = 2.56$) and follow-up ($n = 157, \mu = 2.53, Mdn = 1, SD = 2.72$) among nonsexual offenders, but again not in the expected direction. The mean of the ranks in favor of higher scores at follow-up than baseline was 56.40 and the mean of the ranks in favor of higher scores at baseline was 60.33 ($r = -0.19$). It was hypothesized scale scores would decrease

from baseline to six months as adjustment took place, but scale scores significantly increased from baseline to follow-up among both sexual and nonsexual offenders on the PVI.

Mann-Whitney U Test

A series of Mann-Whitney U tests were conducted to determine if significant between group differences exist between sexual offender's scale scores at baseline and nonsexual offender's scale scores at baseline, as well as sexual offender's scale scores as at six month follow-up and nonsexual offender's scale scores at six months. The categorical, independent variable was sexual offender status (i.e., sexual offender or nonsexual offender) and the three dependent variables were the PAQ Conflict, PAQ Distress, and PVI Victimization scores. An alpha level of .05 was used as the criterion for significance.

According to the results of the Mann-Whitney U test ($z = -0.57$, $p = .57$, $U = 4576$), sexual offender's scale scores ($n = 40$, $\mu = 7.07$, $Mdn = 6$, $SD = 2.09$) on the PAQ Conflict scale did not significantly differ from nonsexual offender's scale scores ($n = 242$, $\mu = 7.03$, $Mdn = 6$, $SD = 2.04$) at baseline. Sexual offenders had an average rank of 148.10, while nonsexual offenders had an average rank of 140.41 ($r = -0.03$). Unexpectedly, sexual offender's scale scores ($n = 15$, $\mu = 8.6$, $Mdn = 8$, $SD = 3.18$) on the PAQ Conflict scale did not significantly differ ($z = -0.13$, $p = 0.90$, $U = 1153.50$) from nonsexual offender's scale scores ($n = 157$, $\mu = 8.36$, $Mdn = 8$, $SD = 2.34$) at the follow-up. Sexual offenders had an average rank of 86.65, while nonsexual offenders had an average rank of 84.90 ($r = -0.01$). It was hypothesized sexual offenders would have significantly higher scale scores at baseline and follow-up on the PAQ Conflict scale than nonsexual offenders and these hypotheses were not supported.

According to the results of the Mann-Whitney U test ($z = -2.22$, $p = 0.026$, $U = 3781.50$), sexual offender's scale scores ($n = 40$, $\mu = 16.4$, $Mdn = 16$, $SD = 4.37$) on the PAQ Distress scale

were significantly higher than nonsexual offender's scale scores ($n = 242$, $\mu = 15.03$, $Mdn = 14$, $SD = 3.64$) at baseline, as expected. Sexual offenders had an average rank of 167.96, while nonsexual offenders had an average rank of 137.13 ($r = -0.13$). This supported the hypothesis that sexual offenders would experience more subjective stress than nonsexual offenders. Unexpectedly, sexual offender's scale scores ($n = 15$, $\mu = 16.33$, $Mdn = 15$, $SD = 5.80$) did not differ significantly ($z = -0.79$, $p = 0.43$, $U = 1033$) from nonsexual offender's scale scores ($n = 157$, $\mu = 14.78$, $Mdn = 15$, $SD = 4.04$) at follow-up on the PAQ Distress scale. Sexual offenders had an average rank of 96.13, while nonsexual offenders had an average rank of 85.58 ($r = -0.06$). It was hypothesized sexual offenders would score higher than nonsexual offenders on the Distress scale at follow-up and this hypothesis was not supported by the results.

According to the Mann-Whitney U test ($z = -1.22$, $p = 0.22$, $U = 4203.50$), sexual offender's scale scores ($n = 40$, $\mu = 1.67$, $Mdn = 1$, $SD = 1.84$) on the PVI Victimization scale unexpectedly did not significantly differ from nonsexual offender's scale scores ($n = 242$, $\mu = 1.70$, $Mdn = 0$, $SD = 2.56$) at baseline. Sexual offenders had an average rank of 154.94, while nonsexual offenders had an average rank of 139.28 ($r = -0.07$). It was hypothesized sexual offenders would have higher scale scores than nonsexual offenders on the PVI Victimization scale at baseline and this hypothesis was not supported. Sexual offender's scale scores ($n = 15$, $\mu = 4.8$, $Mdn = 5$, $SD = 3.75$) did differ significantly ($z = -2.50$, $p = 0.01$, $U = 717.50$) from nonsexual offender's scale scores ($n = 157$, $\mu = 2.53$, $Mdn = 1$, $SD = 2.72$) on the PVI Victimization scale at follow-up. Sexual offenders had an average rank of 115.17, while nonsexual offenders had an average rank of 82.63 ($r = -0.19$). It was hypothesized sexual offenders would have higher scale scores than nonsexual offenders at follow-up and this

hypothesis was supported. Contrary to the fourth hypothesis, both sexual and nonsexual offenders showed an increase in PVI Victimization scale at follow-up.

Table 8

Scale Scores for the Sexual Offender (SO) and Nonsexual Offender (NSO) Participants

	SO Baseline <i>n</i> = 40	SO Follow-up <i>n</i> = 15	NSO Baseline <i>n</i> = 242	NSO Follow-up <i>n</i> = 157
	Mean, (SD), Median Range			
PAQ Conflict Scale	7.07, (2.09), 6 8	8.6, (3.18), 8 11	7.03, (2.04), 6 11	8.36, (2.34), 8 11
PAQ Distress Scale	16.4, (4.37), 16 16	16.33, (5.80), 15 20	15.03, (3.64), 14 16	14.78, (4.04), 15 22
PVI Victimization Scale	1.67, (1.84), 1 5	4.8, (3.75), 5 11	1.70, (2.56), 0 16	2.53, (2.72), 1 10

DISCUSSION

Findings and Implications

This study is among the few to examine the institutional adjustment of sexual offenders. The extant literature indicates they are fearful and generally have greater difficulty adjusting to prison than nonsexual offenders (Schwaebe, 2005). Incarcerated sexual offenders are likely to have a more difficult adjustment experience than other types of incarcerated offenders (Schwaebe, 2003). Additionally sexual offenders appear to have a higher prevalence of mental health problems, which can adversely impact their adjustment experience (Kafka & Hennen, 2002). This study compared the experience of sexual and nonsexual offenders on measures of distress, conflict, and victimization during the first six months of their first prison incarceration.

The current study results lend support to past research on the institutional adjustment of sexual offenders. In this study sexual offenders experienced significantly more distress than nonsexual offenders at baseline. This lends support to the idea that sexual offenders are generally more fearful than other offenders at the beginning of their incarceration. Additionally, the study

results indicated sexual offenders were victimized at a significantly higher rate than nonsexual offenders at the six month follow-up. Although sexual offenders reported higher victimization rates at baseline than nonsexual offenders, the results were not statistically significant. This also supports past research findings that sexual offenders are often subject to harassment and violence due to the nature of their offense. It is possible sexual offender participants at baseline had not been in prison long enough for their offense to be discovered by other inmates. By the six month follow-up the level of victimization may have increased to significant levels as other inmates became aware of the participant's sexual offense. A number of limitations, discussed below, impacted the results and generalizability of the current study.

This study yielded unexpected results in regard to an increase in scale scores on the Conflict scale of the PAQ and Victimization scale of the PVI from baseline to the six month follow-up. Unexpectedly, scale scores on the Conflict scale of the PAQ and Victimization scale of the PVI increased from baseline to follow-up among both groups. As mentioned above these findings may be related in part to other inmates finding out the study participant was a sexual offender; however, interestingly, scale scores increased among nonsexual offenders as well. A possible explanation may be both conflict and victimization increase with time, as inmates have more opportunity to interact with one another. It also seems that conflict and victimization are common elements of adjustment to prison for any inmate. Violence is a ubiquitous part of prison life and an adaptive survival mechanism in some instances. An increase in level of conflict by an inmate may actually indicate an attempt by that inmate to protect him or herself. Distress would seem to be a natural consequence of this dynamic and expected among inmates attempting to adjust to a new environment. Distress, however, may make an inmate appear to be weak or

vulnerable to other inmates and this may lead to additional victimization. It is possible sexual offender study participants who experienced more distress were also more frequently victimized.

The initial adjustment process may extend beyond six months and significant decreases in scale scores may occur over a longer time frame than what was measured in this study. According to the results of this study, scale scores either remained relatively unchanged from baseline to follow-up or they increased. This suggests the initial adjustment process lasts longer than six months. Additionally, the new inmate may face increasingly greater challenges as he or she acclimates to the prison environment. It is beyond the scope of this study to speculate when the scale scores may begin to decrease. As inmates transfer from the intake facility to a more permanent location the adjustment process may be further complicated as the new inmate must now learn the rules, routine, and dynamics of the new institution. This may warrant further study in future research. These unexpected results may have been influenced by many of the study limitations discussed in detail below. There is however, enough empirical evidence in the literature to conclude that incarcerated sexual offenders, as a whole, are members of a stigmatized group and therefore are subject to harsher treatment than other types of offenders. This assertion is supported by the results of this study as sexual offenders were found to experience more distress than nonsexual offenders at baseline and sexual offenders experienced more victimization than nonsexual offenders at follow-up.

This research study has implications for effective management of correctional institutions. Correctional institutions are invested in effective inmate classification as a means to operate at maximum efficiency; but above all to maintain the highest level of safety for staff and inmates (Wright, 1988). Beyond these institutional-level goals, institutions are federally mandated to ensure the security of inmates and adequately provide for their basic needs (Austin

& McGinnis, 2004). Due to the prevalence of antisocial individuals in prison, the nature of the prison environment is one of predator and prey. Vulnerable and naïve inmates can be easily exploited in a number of ways. Early screening procedures can identify vulnerable and/or risky inmates and make recommendations about special management of those inmates. Early detection of these inmates can result in improved institutional safety and more efficient utilization of resources. Considering the results of this study, institutions may consider monitoring the distress levels of incoming inmates. If there is a relationship between level of distress and rate of victimization, institutions may be able to identify and manage more anxious or distressed inmates as a means to reduce victimization as a whole. Sexual offenders were found to be more distressed than nonsexual offenders in this study at baseline. Institutions may be able to use this knowledge to intervene early to protect sexual offenders from victimization.

The initial period of adjustment can be a sensitive time during which inmate stress levels are high and inmates are more vulnerable to victimization and/ or acting out behavior (Toch, Adams, & Grant, 1989). The research on inmate adjustment to prison highlights the role of stress in exacerbating psychological problems (Toch, 1977; Zamble & Porporino, 1988). Inmates experiencing high stress levels, as well as inmates with mental health problems have more physical complaints and are involved in more altercations which can burden the medical services unit at the institution (Ditton, 1999; James & Glaze, 2006; Toch & Adams, 2002). These inmates are also at increased risk of committing suicide and managing an actively suicidal inmate can further strain institutional budgets. Information from this body of research can help institutions be more sensitive to these inmates by providing targeted treatment and services, while simultaneously serving the needs of the institution.

Another result of this study that may lend assistance to institutions in effective inmate management was discovered while comparing the participants who dropped out of the study prior to follow-up with those who completed the follow-up. The participants who dropped out were found to be significantly younger, less educated, and had longer sentences than those participants who completed the follow-up. Although no specific conclusions can be drawn from these results, one can speculate that age, level of education, and sentence length are possible markers for adjustment. There is a substantial amount of research supporting these claims. Institutions may consider examining these variables when screening inmates to identify those at greater risk of maladjustment.

There are two popular theories of adjustment in the literature, the importation model and the indigenous or deprivation model. The importation model views adaptation to prison as based on the values and attitudes the inmate brings to prison with them. Their adjustment will be based on the pre-prison lifestyle and characteristics. The indigenous model suggests maladjustment to prison is related to the inmate's response to the deprivation inherent in the prison environment, specifically loss of freedom and separation from one's family and friends. Although the results of this study cannot speak specifically to this debate, it appears the results support the idea that the indigenous and importation models are complimentary and adjustment is impacted by both inmate characteristics and environmental considerations. Sexual offender status, an importation variable, did impact inmate adjustment in that sexual offenders experienced more distress than nonsexual offenders at baseline and higher victimization rates at follow-up. The distress the study participants experienced was directly related to their incarceration and the complexity of the prison environment, particularly their negative interactions with other inmates. Abuse and assault histories were recorded for the study participants. Sexual offender participants

experienced higher rates of sexual abuse in childhood and adulthood and higher rates of physical abuse in childhood than nonsexual offenders. Although this study did not directly examine the impact of abuse history, an importation variable, future research may explore the effects of abuse history on prison adjustment.

Incarcerated sexual offenders are clearly a population that warrants special attention due to their vulnerability in the prison environment. A large body of research exists, including the results of this study, to suggest sexual offenders differ from nonsexual offenders in many ways. This idea has implications for institutional management and it may benefit institutions to be aware of these differences. Newly incarcerated sex offenders may benefit from a special orientation or mentorship to learn the “unwritten” rules of the inmate code, stress management techniques, and coping skills. They may also be taught how to better assimilate into the environment and ways to avoid exploitation and victimization. Many sex offenders enter prison with deficits in coping which may be exacerbated in the totalitarian prison environment (Finkelhor, 1984; Marshall & Barbaree, 1990; Hall & Hirschman, 1991; Ward & Siegert, 2002). Some institutional systems may even have the luxury of separate housing units for vulnerable inmates, particularly during the sensitive adjustment period. Institutions may also provide training to staff about the adjustment process so they can foster a supportive environment for inmates struggling with assimilation. Training may also decrease negative staff attitudes about inmates in general, particularly sex offenders, which can ultimately influence the prison climate on a broader level. Incarcerated sexual offenders are likely to experience higher stress levels and a lesser sense of safety if they perceive hostility from staff.

With a rapidly increasing number of incarcerated female inmates, effective management techniques will be essential to female institutions as well. Researchers have established the

experience of female inmates to be different from their male counterparts (Clay, 1998). Although there are conflicting findings in the literature, incarceration may be a more painful experience for women than men for a variety of reasons discussed previously (Jones, 1993; Ward & Kassebaum, 1965). Unfortunately, due to limitations in the sample size of this study, no conclusions could be drawn regarding the specific experience of female inmates. Once again, bringing awareness to this area will hopefully attract the attention of researchers and eventually the prison administration to make appropriate changes and accommodations.

As the public becomes more aware of sexual assault perpetration by females, the number of incarcerated female sex offenders will likely increase (Becker, Hall, & Stinson, 2001). The findings of this study do not specifically address differences between female sexual offenders and nonsexual offenders, however based on what is known about female sexual offenders they seem to experience a higher prevalence of mental health problems which can adversely impact their adjustment to prison and possibly place an additional burden on institutional resources.

Strengths and Limitations

The findings of this study raise interesting questions about the process of adjusting to prison and the individual and environment factors that influence adjustment. Beyond general adjustment to prison, sexual offenders face additional challenges by virtue of the label 'sex offender' alone. The most significant strength of this study is it is one of the few to examine the institutional adjustment of sexual offenders, and among the first to include female sexual offenders in the sample, which have been a little studied group due to their relatively small numbers in institutions. The findings suggest some measurable differences between incarcerated sexual offenders and nonsexual offenders, however it is the belief of this researcher the study limitations impacted the results.

Adjustment is a complex construct that must be measured over time. The six month follow up period in this study allowed for measurement of change over time in regard to level of conflict, distress, and instances of victimization. The results, however highlight the adjustment process is ongoing and the initial six months of the incarceration represent a snapshot of the adjustment process. Another strength of the study is the PAQ and PVI are established in the literature as reliable instruments and address aspects of the construct of adjustment. The items are straightforward, easy to understand, and specific. This study lends support for the use of the Prison Adjustment Questionnaire and the Prison Violence Inventory as fast and simple indicators of level of adjustment. The instruments by no means capture the entire construct of adjustment, but allow for an uncomplicated way to monitor distress and victimization.

The study sample of both sexual and nonsexual offenders was comprised entirely of first time inmates. This is a strength of the study because the initial adjustment process can be measured more purely without the interference of past prison experience. Individuals returning to prison likely have a different experience than inmates entering prison for the first time because they have the benefit of their past experience to help them anticipate what to expect. They are already familiar with the unspoken rules and norms of prison. They have also likely developed specific coping strategies over past incarcerations that assisted in maintaining their safety. It is possible they experience less stress returning to prison and have a shorter and possibly more comfortable initial adjustment period. In contrast, if their previous prison experience was traumatic or they were victimized, the returning inmate may have an elevated fear and stress level than what would be typically expected.

Several limitations of the study bear discussion. A potential confound in this study is the use of a sample comprised only of first time offenders. It is possible that all inmates experience

an increase in conflict and distress during the first six months of incarceration, and there is little distinction between the groups. A significant difference may emerge when comparing sexual offenders to an average inmate entering prison.

The sample size was a significant problem and greatly limited the statistical analyses that could be performed on the data and the conclusions that could be drawn. Both the Wilcoxon and Mann-Whitney U tests have a recommended minimum number of data points needed to conduct the tests. The sample size of this data was slightly smaller than the recommended numbers and this may have impacted the robustness of the statistical findings. Additionally nine cases were deleted prior to statistical analysis. The cases that were deleted each included two or more PAQ or PVI scale scores that fell two standard deviations above the mean. In five of the nine cases, one of the scale scores fell three or more standard deviations from the mean. It is the belief of this writer that these individuals represented a unique group that was characteristically different than the target population of this study. As discussed in the *Literature Review*, many factors have been shown to impact adjustment, including individual characteristics such as mental health status, etc. It is possible these participants entered prison with a predisposition that made them more likely to be in conflict, experience more distress, and be subjected to higher victimization rates than the average study participant. Identifying these individuals may of highest importance to institutions due to their extreme maladjustment.

The sample of female sexual offenders in particular was too small to allow for comparisons with the female nonsexual offender sample or the male sexual offender sample, therefore no conclusions could be drawn about the adjustment experience of female sex offenders specifically. See Tables 5 and 6 for the scale scores of participants broken down by gender.

Attrition also contributed to the small sample size. Many inmates participated in the baseline component of the study, but did not complete follow-up measures. The follow-up measures were mailed to the inmates six months after baseline and it is possible they lost interest in the study by that time. Without the benefit of face to face contact with the researchers at follow-up and the lack of incentive among the male study participants, many inmates dropped out by the six month mark (65% of sexual offender study participants and 35% of nonsexual offender study participants). The female participants were offered a monetary incentive for their full participation and therefore had a lower drop-out rate. A large amount of demographic data, particularly among male participants was also missing, making it difficult to accurately characterize the sample. Another consequence of the high attrition rate was the demographics (i.e., age, sentence length, and educational level) of each group changed from baseline to the six month follow-up; however, according to the results of t-tests performed on these data the changes were not significant, but they bear mention. Additionally, the participants who dropped out prior to the follow-up were younger, less educated, and had longer sentences than those participants who followed-up. Therefore it appears the individuals who chose to drop-out of the study are a self-selecting group and this may have biased the results overall.

Researchers consider six months to be a typical period of initial adjustment, but the exact time frame during which adjustment takes place is not necessarily a discrete time period. The adjustment process is ongoing and the initial six months examined in this study represents a snapshot. The adjustment process likely varies by individual based on individual characteristics and past experiences. This study adopted the six month time frame as a reasonable follow-up period to capture some elements of the adjustment process. In future research it would be interesting to administer adjustment measures for a longer time period than six months.

It is important to recognize the ways in which adjustment was measured in this study (i.e., PAQ Conflict and Distress Scales and PVI Victimization Scale) only constitute a small portion of the broader construct of adjustment. Both the PAQ and PVI only offer a glimpse into the experience of the inmate filling them out. As discussed previously the construct of adjustment is multifaceted and influenced by a number of factors. This study did not account for other adjustment correlates that could impact the results, such as mental health status, age, race, etc. The stress that results from being a first time inmate may have overshadowed the stress of entering prison as a sex offender in this study, making the two samples appear relatively similar on the PAQ and PVI. In the future, repetition of this study with a larger sample may allow the researcher to differentiate the experience of being a first-time inmate from entering prison as a sexual offender.

Also in regard to use of the PAQ as a measure of institutional adjustment, it should be noted there are discrepancies in the literature as to which factor structure is most appropriate. The PAQ was developed by Wright (1985, 1986) as part of a larger study on inmate classification among male research participants. He found a three factor structure best fit the data with moderate to high factor loadings. Since that time there do not appear to be any follow-up reliability and validity studies with male inmates. There is not enough data currently available to support the generalizability of the PAQ beyond Wright's initial study. Warren conducted two studies of female inmates using the PAQ (Warren, 2008; Warren, Hurt, Loper, and Chauhan, 2004). Her findings supported the use of a two factor structure for the PAQ and she suggested Wright's three factor model may actually minimize the adjustment experience of the female inmates in her sample. Without follow-up studies validating Wright's three factor structure for

the PAQ, it is possible the PAQ underestimated the maladjustment of the participants in this study.

Future Research

Future research should continue to examine the construct of adjustment and work toward a common definition of the term, with the ultimate goal of reaching consensus on the best way to measure it. Thus far much of the research has measured adjustment using only behavioral correlates (i.e., conduct reports or institutional record) and/ or emotional correlates (i.e., self-report measures of stress and coping) and this has oversimplified the construct. The complex and multifaceted nature of the adjustment process has been difficult to characterize, but has significant implications for institutional management of a variety of special offender populations (i.e., mentally ill, the very young and elderly, racially diverse groups, those with longer versus shorter sentences, etc.). Researchers are also aware of institutional variables that can impact prison climate, and therefore adjustment of new inmates. Some of these variables may be within the control of the prison administrators and can be potentially altered to improve the climate. It would also be beneficial to learn more about the characteristics and coping strategies of individuals who are able to adjust quickly, with minimal stress. The information could be used as the basis for a training/ orientation program for vulnerable inmates.

This study, particularly the limitations of the study, gives rise to additional areas of research. The limited sample size of this study was considered a limitation, but it would be fascinating to replicate this design with a larger sample. With more research participants and data, new patterns may emerge. As mentioned, the small sample size made it difficult to fully differentiate the experience and distress level of a sexual offender from that of a first-time inmate. A larger sample size would also allow for more robust statistical analyses to be applied

and yield more reliable results. Another potential area of study may be to track inmates for a longer period of time to monitor adjustment, particularly as they migrate from the intake institution to a more permanent location.

There was a high prevalence of attrition in this study sample, especially among male participants likely because they were not offered a monetary incentive to complete the study. In comparing the study participants who dropped out to those who completed the follow-up, it was found the drop outs were younger, less educated, and had longer sentences than those who followed up. Essentially this was a qualitatively different group than the participants who completed the follow-up. This self-selecting group of individuals may be more vulnerable to victimization and/ or the stress of adjustment and would seem to warrant future study. Future studies may wish to offer a monetary incentive to decrease attrition and/ or may consider sending a research assistant in person to meet with participants for follow-up as a means to improve participation.

There were nine outlier cases that were deleted from the sample due to their extreme deviation from the mean on the PAQ and PVI. These participants may also represent a unique group of individuals prone to difficulty with adjustment. They may be the most vulnerable to victimization and have preexisting characteristics, such as mental illness or extremely poor coping that would make them highly vulnerable. Future research may consider following up with these participants to see if a common characteristic emerges.

In regard to sexual offenders, it is clear their adjustment process warrants further examination. The research has shown them to have a high prevalence of mental health problems, ineffective coping, and more vulnerability to victimization based on the label of 'sex offender.' Future research will further elucidate this group of individuals and their unique needs. As

mentioned previously, researchers may consider comparing a sexual offender group with a group of randomly selected offenders (i.e., not individuals serving their first incarceration) on measures of adjustment to see if significant differences emerge.

As mentioned above the experience of individuals entering prison for the first time is likely to be different from repeat offenders. In future research it would be fascinating to compare the initial adjustment experience of repeat sexual offenders to first time sexual offenders. Repeat offenders could be interviewed to gauge the coping techniques they developed during past incarcerations and measure their effectiveness on reducing distress and victimization. It would also be informative to design and implement an orientation for sexual offenders entering prison that would teach stress management and advise the inmate on how to effectively navigate the prison environment. The individuals who participated in the orientation could be compared to a control group of sexual offenders who did not participate in the orientation using the PAQ and PVI.

In recent years researchers are beginning to pay more attention to female sex offenders in general and are learning that they are qualitatively different than their male counterparts. It is likely their experience of adjusting to prison will also differ. Female institutions have a unique culture and dynamic and this will also play a role in the adjustment process. It is essential researchers and prison administrators avoid erroneously applying information from studies of male inmates to female inmates.

The research possibilities related to female sexual offenders are endless due to the paucity of the research with this specific group. Unfortunately this study did not have enough female sexual offenders to complete any statistical analyses, but future research may seek to examine the adjustment experience of female sexual offenders. This study design could be

replicated with a larger sample size. Female sexual offenders could be compared to male sexual offenders on the PAQ and PVI to examine the similarities and differences between their adjustment experiences. Female sexual offenders could also be compared to nonsexual offenders in a similar manner.

The field of research on prison adjustment is relatively new and has a lot of potential to add to the broader literature on criminality and recidivism. Perhaps the outcome of this research can help institutions work toward the end of rehabilitation of inmates, rather than a purely punitive approach which could result in reinforcing criminal attitudes and behavior.

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